

2001 CATALOG

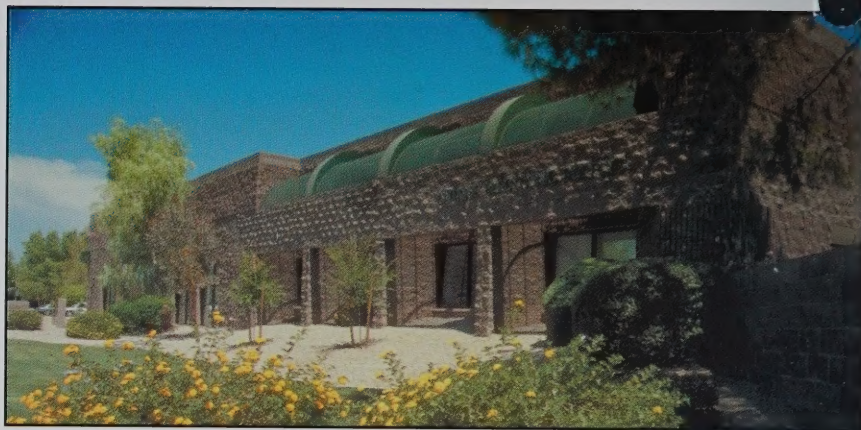


**ANTIQUE
ELECTRONIC
SUPPLY[®]**



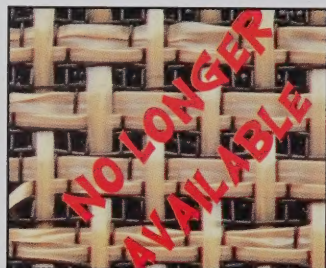
**TUBES •
PARTS •
BOOKS •
SUPPLIES •**



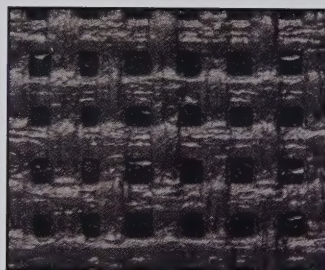


GUITAR CABINET GRILL CLOTH

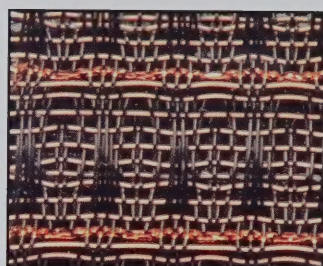
Replacement grill cloth as found on Fender and other vintage guitar amps. Cloth is 32" high. Order enough to cover the width of your cabinet, plus a bit for frayed edges. Sold per linear foot.



S-G298
BLACK/TAN WEAVE
\$8.00/ft



S-G299
BLACK WAFFLE
\$8.00/ft



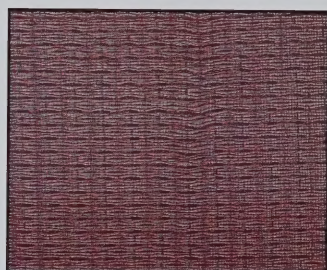
S-G300
BLACK/GOLD
\$9.00/ft



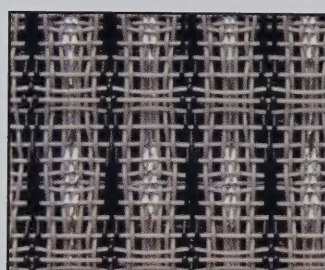
S-G296
BLACK BASKET
\$9.00/ft



S-G301
OXBLOOD/YELLOW
\$8.00/ft



S-G302
OXBLOOD
\$8.00/ft



S-G303
BLACK/SILVER/GRAY
\$9.00/ft



S-G297
BROWN BASKET
\$9.00/ft

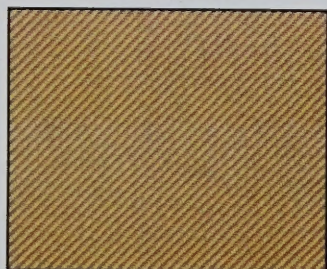
ACOUSTONE GRILL CLOTH

12" x 18" of modern grill cloth by Acoustone. Eight assorted patterns, our choice.

S-G114 **\$12.00**

CABINET COVERING

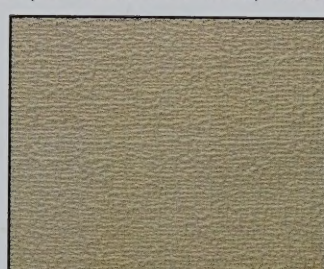
Replacement cabinet covering for Fender and other popular guitar amps. Tolex is 54" wide, Tweed is 56" wide, sold by linear foot.



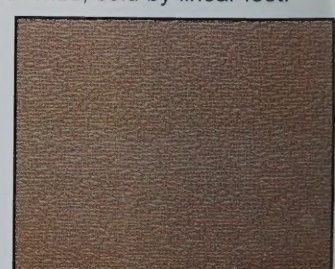
S-G305
TWEED
\$11.00/ft



S-G306
BLACK TOLEX
\$11.00/ft



S-G307
CREAM TOLEX
\$11.00/ft



S-G308
BROWN TOLEX
\$11.00/ft

GRILL CLOTH - CABINET COVERING

ANTIQUE ELECTRONIC SUPPLY®

(480) 820-5411 • Fax (480) 820-4643 or Fax (800) 706-6789 (US & Canada)

www.tubesandmore.com

OUR PRICING & QUALITY

We believe we provide competitive and fair pricing while maintaining the quality and integrity of the product. We feel that we can save you money by providing you with a reliable and timely source for your electronic component needs. We charge a handling fee of \$2.50 on each order. We have a \$10.00 minimum order requirement that can be waived with the understanding that the cost of shipping and handling may exceed the price of the goods purchased. **All prices and availability are subject to change. Our 2001 catalog is issued in October 2000 and prices are effective immediately.**

OUR GUARANTEE

All items in our catalog are guaranteed to meet your satisfaction or they may be returned within 10 days for exchange or credit. **Please check and/or test your purchases upon receipt**, even if the items are a back-up set for future use, and notify us of any problems within the warranty period.

We reserve the right to charge a restocking fee where no evidence of product failure exists if merchandise is returned after the 10 day period. No returns will be accepted without contacting Customer Service for authorization. (See below)

All **non-tube** items are warranted for 30 days.

All **new tubes** (except horizontal amplifier tubes, also known as "linear or sweep tubes") are guaranteed to meet manufacturers specifications for 90 days, except for breakage or when damaged by operation outside manufacturers' specified ratings.

All **used tubes** are guaranteed to meet minimum industry standards for used tubes and are guaranteed for 30 days. The same exceptions and conditions as noted above for new tubes apply to used tubes.

Linear/Sweep tubes are guaranteed for 10 days, except for breakage or when damaged by operation outside the tube manufacturers' specified ratings. The following is a sample list of what we consider linear/sweep tubes (new and used tubes are included): 6DQ5, 6DQ6A-B/6GW6, 6HB5, 6HF5, 6JB6-A, 6JE6C/6LQ6, 6JG6A, 6JR6, 6JS6C, 6JT6A, 6JU6, 6KD6, 6KG6A/EL509, 6KV6A, 6LF6/6MH6, 6LR6, 6LX6, 6MJ6, 12JB6A, 12JF5, 12JQ6, 12JT6A, 17JQ6-A, 17JT6A, 17KV6A, 20LF6, 21JS6A/23JS6, 22JF6/22KM6, 22JG6A, 22JR6, 22KV6A, 24JE6C/24LQ6, 26LW6, 26LX6, 27LF6, 29LE6, 30JZ6, 30KD6, 31JS6C, 31LQ6, 31LZ6, 35LR6, 36KD6/40KD6, 36LW6, 36MC6, 40KG6A/PL519, AND 42KN6.

Please check all linear/sweep tubes upon receipt. If there is a problem, please notify us immediately. After your contacting us, we will take the tube back for evaluation by our technician. We will contact you with a decision about replacement or credit after the evaluation. **If the linear/sweep tubes are out of the 10 day warranty period we will not take them back under any circumstances.**

Should it be necessary to return merchandise for exchange or credit, please write, fax, e-mail or call with a reason for the return and you will be given a Return Authorization (RA). **Customer service is available by phone from 8am-10am and 2pm-4pm, Mon.-Fri.** All returns should be sent promptly; all returns must be received by us within 30 days or the RA number will become invalid. The RA number must be placed on the outside of the package being returned in order to assure that your return is handled in a timely manner.

DEALERS & RESELLERS

We suggest you test all tubes or any type of electrical product upon receipt as our warranty does not extend beyond you and ends when you resell the item.

C. O. D. CUSTOMERS

There is a \$5.50 COD fee on all orders shipping UPS COD service. All orders shipping COD require payment by cashier's check or money order unless payment by check has been arranged with us in advance. If we send an order to you COD and the order is returned to us by UPS for any reason other than an error by us, you are still responsible for UPS shipping charges. You will receive a notice stating that the package was returned. It will tell you why the package was returned and how much is owed in shipping fees. We ask that this amount be paid before another order is shipped to you. You can pay the amount when you place a new order by adding it to the COD total, or you can send a check for the amount owed.

HOURS OF OPERATION

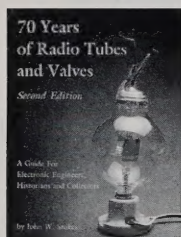
We accept phone orders from 8:00 am to 5:00 pm (MST) Monday through Friday and from 9:00 am to 1:00 pm the first and third Saturday of each month (Saturday hours are subject to change, refer to our web site or call for current Saturday hours). Fax orders can be sent 24 hours a day, 7 days a week. You can also browse our products and place orders over the Internet by going to our web site at

www.tubesandmore.com

INFORMATION

Books, Literature, Videos and Software

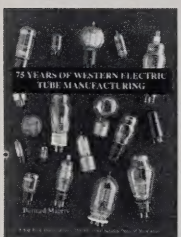
We have an extensive selection of books, literature, videos and software dealing with vacuum tubes, radio collecting, guitar and audio and electronic instruction. For any "B"- only (Any part number beginning with the letter B) order of \$20.00 or more, we will waive the \$2.50 handling fee. Also, ask about our damaged books. We have some titles with slight damage which we offer at 20% below prices shown in the catalog.



70 YEARS OF RADIO TUBES AND VALVES: Second Edition. By John W. Stokes. Here is the story of the thermionic vacuum tube from its beginning in 1883 and continuing through 1960. It traces the evolution of radio receiving tube design in Britain, Holland, Germany, Canada and Australia, as well as the United States. Company history is presented for DeForest, Ken Rad, Western Electric, Mazda, Mullard, Ediswan, Philips, MOV Valve, Raytheon, Sylvania, GE, Philco, Marconi, Telefunken, Tung-Sol and others. The Second Edition features a new chapter on tubes for audio applications, with 20 additional photos and reproduced

magazine ads. Also included is a new index by tube number, facilitating easy access to the information on over 1300 types discussed in this book. 264 pages, 2.0 lbs.

B-765 \$29.95



75 YEARS OF WESTERN ELECTRIC TUBE MANUFACTURING. By Bernard Magers. A Log Book history of over 750 WE tubes. A comprehensive listing of all WE tubes manufactured during their 75 year history. Includes dates of manufacture, description, equipment used in, materials, a summary of tube parameters and manufacture discontinued date. Also covers early history of the Western Electric Co. and their tube activity. Contains hundreds of tube illustrations. Written by a former Western Electric Senior Engineer. 144 pages, 1.0 lb.

B-634 \$19.95



1937 SYLVANIA TUBE MANUAL.

Re-print of 1937 tube manual has pin out diagrams and specifications on tubes manufactured by Sylvania in 1937. Tube types range from 01A and X99 to 6K7. Includes 10 pages of general tube information as well as a section of typical radio receiver and amplifier circuits of the day. 183 pages, 0.7 lb

B-764 \$12.95

NEW!

BRITISH RADIO VALVES THE VINTAGE YEARS:

1904-1925 By Keith Thrower. Includes background on the manufacturers and suppliers; Fleming diodes; marconi-round valves; valves produced for the armed services; and more. Extensive references, with data on 475 types. 100 plus black and white photos. Indexed, 148 pages. 1 lb.

B-840 \$32.95

THE BALLAST TUBE HANDBOOK.

By A. P. Jacobi. A comprehensive collection of ballast tube data, newly revised and expanded to include a 53 page section on ballast tube substitutions. Lists over 4000 tube numbers. 120 pages, 0.9 lb.

B-573 \$10.95

DATING THE RCA (CUNNINGHAM)

COMPOSITION-BASE TUBES. By Brother Pat Dowd. A comprehensive paper based on RCA engineering bulletins covering the marking details and date coding of the tubes manufactured between 1924 and 1941. 13 pages, 0.3 lb.

B-343 \$3.50

EARLY VALVES - CHARACTERISTIC DATA FOR ENGLISH AND EUROPEAN RADIO VALVES FROM THE EARLY 1930's. A facsimile reprint of information and tables from 1933 "Wireless World" Valve Data Supplement. Valve type tables are divided into the following categories: Screen grid; Vari- μ ; Triodes (ACR<7000 Ω); Triodes (ACR>7000 Ω); Output pentodes; Class 'B'; Rectifiers; Metal rectifiers, Miscellaneous; Westectors. 32 pg. 0.5 lb.

While Supplies Last

B-828

\$5.00

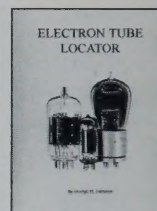


ELECTRON TUBE LOCATOR.

By George H. Fathauer. A comprehensive listing of receiving, transmitting and industrial tube types manufactured in the U.S. and Europe with references to sources of complete data. Includes tube functions, filament/heater characteristics and basing diagrams. Lists approximately 12,000 different tube types. Contains over 300 pages of data and diagrams. 326 pages, 1.5 lbs.

B-662

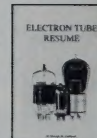
\$25.95



ELECTRON TUBE RESUME. By George H. Fathauer. An abridged version of the "Electron Tube Locator" covering the designation system used by major tube manufacturers in the U.S. and Europe. Includes equivalent tables for U.S. VT types and early Navy types. 30 pages, 0.3 lb.

B-672

\$4.95

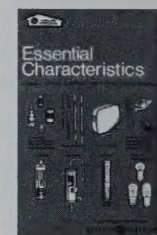


G.E. TUBES - ESSENTIAL CHARACTERISTICS.

The 1973 edition of G.E.'s tube data book, giving all the characteristics starting with 00A and 01A. Includes foreign to American tube interchangeability chart, industrial/military cross reference, picture tube data and basing diagrams. Also entertainment semiconductors. 473 pages, 1.3 lbs.

B-377

\$14.95



HANDBOOK OF RADIO, TV, INDUSTRIAL AND TRANSMITTING TUBE AND VALVE EQUIVALENTS.

This British publication lists equivalents and near equivalents for almost 5000 different tube types, including many European types. Includes tables of WWII Civilian, RAF WWII British Army, British Navy, US service type (VT) and CV types crossed to commercial types. Briefly describes US and European tube number schemes. Does not contain any data or specifications. 60 pages, 0.2 lb.

While Supplies Last

B-677

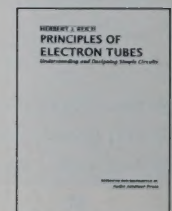
\$5.00



PRINCIPLES OF ELECTRON TUBES. By Herbert J. Reich. First appeared in 1941 as a textbook for beginners studying tube technology. Includes physical concepts, thermionic emission, grid controlled high vacuum tubes, circuit analysis, amplifier design and much more. A must for any library. 398 pages, 1.5 lbs.

B-693

\$34.95



RADIO TUBE MANUAL

RADIO TUBE MANUAL.

Reprint of early manual giving data and basing diagrams on tubes from 00A through octals and locals. Includes types BA and BH, Sparton 182B and 183, and 2 pages on early Western Electric types. 35 pages, 0.3 lb.

B-337

\$5.95



RADIO TUBES AND BOXES OF THE 1920'S.

By George A. Fathauer, captures the excitement and intrigue of that first decade of home radio through a pictorial presentation of the radio tubes of the era. With over 400 photos and illustrations of early tubes, it shows the colorful packaging and sometimes unusual construction features employed by tube makers to market their products to the public. Collectors and historians alike will appreciate this entertaining way of revisiting the early days of the electronics industry in the United States. 1 lb.

B-824

\$26.95

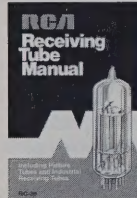
RCA RECEIVING TUBE MANUAL RC-19.

A high quality reprint of the 1959 RCA Receiving Tube Manual (Technical Series RC-19). Includes receiving and picture tube characteristics, basing diagrams, and outline drawings. 380 pages, 1.0 lb.

B-654

\$12.95

RCA RECEIVING TUBE MANUAL



RCA RECEIVING TUBE MANUAL RC-30.

A high quality reprint of the 1959 RCA Receiving Tube Manual (Technical Series RC-30). Includes tubes not found in RC-19. For example: 6CA&/EL34, 5AR4/GZ34, 6DJ8, 6DN7, 6LF6, 6KG6A/EL509, 6550, 7189, 7591 and the 7868 to name a few. Also includes picture tubes and industrial receiving tubes. 760 pages, 2.0 lb.

B-822

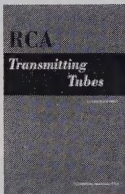
\$24.95

RCA TRANSMITTING TUBE MANUAL.

A high quality reprint of the RCA Transmitting Tube Manual TT-5, it includes tubes up to 4kw plate input. Includes technical data, outlines and typical circuits. 316 pages, 0.9 lb.

B-676

\$14.95



TUBE DATA BOOK SET. Want all the tube specifications and cross references? Buy the following 4 books and save over 18%! 3 lbs.



- GE Essential Characteristics **B-377**
- RCA Receiving Tube Manual (RC-19) **B-654**
- Tube Substitution Handbook **B-825**
- Electron Tube Resume **B-672**

B-DATABOOKS

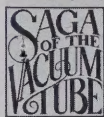
\$42.95

SAGA OF THE VACUUM TUBE.

By Gerald F.J. Tyne. The most comprehensive history of the thermionic vacuum tube. Contains hundreds of photos and essential facts to assist in identifying tubes made prior to 1930, and traces the evolution of tube development with histories of the manufacturers. Truly a classic! 494 pages, 1.4 lbs.

B-376

\$19.95



by Gerald F.J. Tyne



TUBE LORE: A Reference for Users and Collectors.

By Ludwell Sibley. For the serious tube enthusiast: a collection of tech data, history of design trends, notes on equivalents, stocking-up hints, "where-used" information, etc. Describes regular grided tubes used in radios, audio amplifiers, and communications gear, plus the unique types in radar and other special applications. Includes 30 page chapter on Western Electric. Has material unavailable in conventional tube manuals: hints on identifying, dating, testing, reactivating, etc. Does not have detailed specs or curves. 186 pages, 1.0 lbs.

B-748

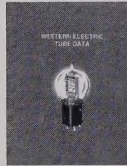
\$19.95

TUBE SUBSTITUTION HANDBOOK. Revised Edition.

William Smith and Barry Buchanan. This is the most accurate, up to date guide available to determine direct substitutions for receiving tubes and picture tubes. 149 pg. 0.5 lbs.

B-825

\$19.95

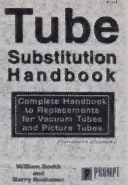


WESTERN ELECTRIC TUBE DATA, 2nd Edition.

Hard-to-find data for 44 Western Electric tube types (205D, 300B, 350B, etc.) popular for audio use and early tube collecting. Includes pictures of tubes and complete operating characteristics and curves. 240 pages, 1.5 lbs.

B-659

\$19.95



RADIO COLLECTING



100 YEARS OF BELL TELEPHONES. By Richard Mountjoy.

From the Coffin sets of the 1870's to the Princess phones of the 1960's and beyond, this book explores the technology and the history of the telephone. Because the Bell Company was the sole source for much telephone technology until very recently, much of the public access to this information has been quite limited. This definitive work will end much uncertainty by providing a vast amount of information never before published. Design changes are carefully chronicled with 350 color photographs. For those who are restoring a telephone and would like to ensure its historical accuracy, this book will make it easy to match pieces correctly. 175 pages, 1.9 lbs.

B-730

\$29.95

1921-1932 RADIO COLLECTOR'S GUIDE. By Morgan E. McMahon.

Lists key information on over 9,000 radio receivers made by some 1,200 companies prior to 1933. Gives manufacturer, year, original price, cabinet type, and technical information. 262 pages, 0.8 lb.

B-306

\$11.95



1940 E.H. SCOTT RADIO LABORATORIES CATALOG REPRODUCTION.

Reprinted by Kent King. Reproduction of the full line catalog of custom built receivers from E.H. Scott Radio Laboratories. Includes the revolution of the time, FM reception. Has several custom built radios and cabinet illustrations and a technical summary of Scott receivers. 32 pages, 0.3 lbs.

B-775

\$12.95

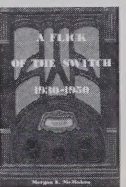


A FLICK OF THE SWITCH 1930-1950. By Morgan E. McMahon.

A companion volume to Vintage Radio 1887-1929, this book continues with the history of radio into the beginnings of Television. Over 1000 pictures. 300 pages, 0.8 lbs.

B-305

\$11.95



NEW!



ANTIQUE SECRETS - HOW THE "PICKERS" FIND TREASURE...IN ANOTHER MAN'S TRASH. By Joe Willard.

This book teaches you the secrets of negotiating profitable deals, knowing when to sell, and where to find the treasures others don't even realize they have. Beginners and experts alike will find down-to-earth advice that is sure to improve both the readers knowledge of the market and skill level. With the right information, anyone can learn how to pick out the treasures others simply overlook. 192 pages. 1 lb

B-835

\$14.95



ANTIQUE WIRELESS ASSOCIATION REVIEW, VOLUME 11.

Includes papers on all of the Scott receiver products, a comprehensive survey paper on National Company sliding coil receivers plus two other shorter papers of historical interest. 200+ illustrations including pictures of early military RT gear. 234 pages, 1.2 lbs.

While Supplies Last.

B-799

\$24.95

THE ATWATER KENT RADIOS. By Ralph O. Williams. 320 pages of Atwater Kent history, including 110 illustrations! Lists all radios and their characteristics. With large fold out sheet and 3 appendices. This book is a must have for the Atwater Kent collector. 0.5 lb.

While Supplies Last.

B-831

\$34.95



BEHIND THE FRONT PANEL. By David Rutland.

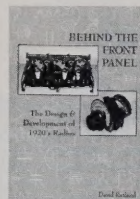
This book traces the design and development of 1920's radio from the advent of the vacuum tube to the first AC set.

Detailed explanations are provided for regenerative, neutrodyne, TRF, reflex, superheterodyne, and other circuits.

Includes dozens of photos of commonly found 20's vintage radios and parts. 160 pages, 0.6 lb.

B-665

\$13.95



NEW!

THE BEST YEARS OF AUSTRALIAN RADIO. By Rod Smith.

Hardcover, with dust jacket. A pictorial history of Australian radios from the 1920's to the 1950's. Over 300 black and white photos of down-under radios and speakers, with period advertisements and brief newspaper reports on industry trends. Over 140 manufacturers mentioned and indexed, including AWA, Kreisler, STC, Airzone, and Phillips. 190 pages. 2lbs.

B-842

\$24.95



BUYING A USED SHORTWAVE RECEIVER can provide great savings. This book the information you need to intelligently select the right shortwave receiver at the right price. There is information on the 100 most commonly traded shortwave receivers, including both portable and tabletop models. Coverage, Specs, Features, New Price, Used Price, Photographs. 0.5 lb.

B-826

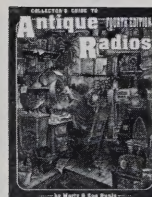
\$5.95

THE COLLECTOR'S GUIDE TO ANTIQUE RADIOS, 4th Ed. By Marty and Sue Bunis. The comprehensive price guide for antique radio collectors. Includes over 5,000 models and over 600 full color pictures. Easy to use format lists radios by manufacturer. Models covered span the years 1920 to 1960. 248 pages, 2.0 lbs.

While Supplies Last.

B-745

\$18.95



COLLECTOR'S GUIDE TO NOVELTY RADIOS. By Marty Bunis and Robert Breed. Lists over 600 models of transistor radios depicting media stars, advertising products, cartoon characters, automobiles, food and beverages and just about anything else imaginable. Each model is pictured in color and has a description and current market value. 224 pages, 1.6 lbs.

While Supplies Last.

B-671

\$18.95



COLLECTOR'S GUIDE TO NOVELTY RADIOS, BOOK II By Marty Bunis and Robert F. Breed. This book is a continuation of 1st book of Novelty radio collecting. As before a suggested price range is shown for each radio. As with all price guides, values shown are intended only as guides to help price a radio. Advertising and Product-Shaped Radios listed include: Isis, Automotive related, Food related, Lunch Boxes and Vending Machines. 199 pages, 2 lbs.

While Supplies Last.

B-794

\$19.95

COLLECTOR'S GUIDE TO TRANSISTOR RADIOS, Second Edition. By Marty and Sue Bunis. Over 3200 radios identified, with current collector value. Includes over 350 color pictures, with only a few repeats from the first edition. Features the highly collectable Japanese sets. 320 pages, 1.1 lbs.

While Supplies Last.

B-718

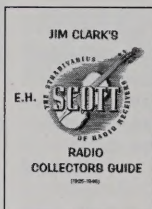
\$16.95



COMMUNICATIONS RECEIVERS, THE VACUUM TUBE ERA: Fourth Edition. By Raymond S. Moore. Improved from edition 3 with new typesetting, new and improved pictures, extensive revisions and new information with 19 pages added. 144 pages, 1.2 lbs.

B-771

\$19.95



E.H. SCOTT RADIO COLLECTOR'S GUIDE. By Jim Clark. A guide to the "Stradivarius of Radio Receivers" from 1925 to 1946. Split into 5 different eras plus additional sections on E.H. Scott cabinets and accessories. Over 100 pages with many black and white pictures. Spiral bound. 0.8 lb.

B-694

\$29.95

EVOLUTION OF THE RADIO. Edited by Scott Wood.

Essentially a picture book, this contains 100 pages of reproduced magazine ads and sales brochures from the 1920's to 1950's, as well as over 100 pages of photographs of old radios reproduced in full-color. Over 1000 radios are pictured altogether. A newly revised 1994 price guide is included giving market values. 216 pages, 1.1 lbs.

B-609

\$22.95



EVOLUTION OF THE RADIO, VOL. 2. Edited by Scott Wood. Contains over 600 full-color pictures of collectable radios dating from 1924 to 1959, with collector prices. 226 pages, 1.2 lbs.

B-643

\$24.95

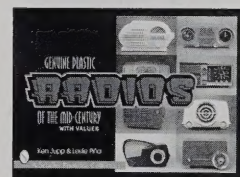


GENUINE PLASTIC RADIOS OF THE MID-CENTURY, WITH VALUES. By Ken Jupp & Leslie Pina.

Mid-century table radios made primarily of brightly colored plastic represent a newcomer to the radio collecting world. With more than 450 full color photographs of radios plus advertisements and black and white vintage photos, this book is a must for anyone interested in radios, mid-century industrial design or popular culture. Hard cover. 219 pages, 3.5 lbs.

B-802

\$39.95



GUIDE TO OLD RADIOS: Pointers, Pictures and Prices. Second Edition. By David and Betty Johnson.

Contains more than 3,300 listings with updated prices; organized alphabetically by manufacturers; 350 photos and illustrations which document the evolution of both radio and broadcasting; and two additional chapters on the heyday of radio. 277 pages, 1.4 lbs.

B-715

\$19.95



HEATHKIT - A GUIDE TO THE AMATEUR RADIO PRODUCTS. By Chuck Penson WA7ZZE.

A complete guide to the 160 or so principal amateur radio products the Heath company produced from 1952 to 1991. B&W pictures of each product are included with pricing, production time period, and comments. Does not go into great technical detail. Includes a great 31 page history of the Heath company. 248 pages, 1.8 lbs.

B-700

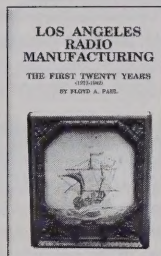
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HIRAM PERCY MAXIM. By Alice Clink Schumacher
A biography of the inventor of the Maxim Silencer and a pioneer in the automotive industry. He is honored by hundreds of thousands of hams as the "Father of Amateur Radio". He organized it, guided it, promoted it, and saved it when it was threatened with being legislated out of existence. This book represents his genius and productivity, but also shows his kindness, sincerity, lively sense of humor and his appreciation for life. 216 pp, 1 lb. **While Supplies Last.** **B-807 \$19.95**

LOS ANGELES RADIO MANUFACTURING, THE FIRST TWENTY YEARS 1922-1942. By Floyd A. Paul
A history of Los Angeles radio manufacturers and their principals from 1922-1942. Covers Advance Electric Co., Lee DeForest Mfg Co., Echophone Radio Co., Gilfillan Bros. Inc., Herbert Horn, Jackson-Bell Co., Patterson Radio Co., Pierson-Delane, Inc., Powell Mfg. Co., Sheldon Radio Co., and Troy Radio Mfg Co. Well illustrated. 88 pages, 0.4 lb. **While supplies last.** **B-523 \$11.90**



MACHINE AGE TO JET AGE:
Radiomania's Guide to Tabletop Radios.
By Mark V. Stein
3 volumes available

Volume 1 - 1933-1959.

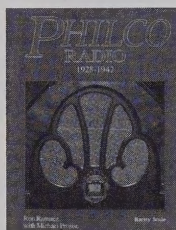
A comprehensive pictorial price guide to machine age style tabletop radios. 46 major manufacturers are covered, as well as 30 pages on miscellaneous manufacturers. More than 1400 radios pictured. 256 pages, 1.9 lbs. **B-690 \$24.95**



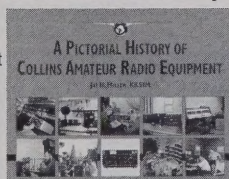
Volume II - 1930-1959, (with market values). A supplement to Mark Stein's first book (B-690), this volume has over 350 pages of all new listings, with 2,700 radios pictured and valued. Listings in both volumes now total over 4,000. 200 color photos. This volume is also expanded to include the years 1930 - 1932. A must for the tabletop radio collector. 358 pages, 2.3 lbs. **B-752 \$28.95**

Volume III - 1930-1962. All new listings, with over 2,800 radios pictured and dated, with tube counts and current collector values. Listings for the 3 volumes of this excellent series now totals 7,000. 256 pp. 1.6 lb. **B-829 \$29.95**

PHILCO RADIO: 1928-1942. By Ron Ramirez with Michael Prossie. A comprehensive reference book on Philco, the leading radio manufacturer during radio's "Golden Age". Contains a year-by-year look at the Philco radio line with specifications for each model. 200 color photographs, 200 b/w photographs and line drawings. 160 pages, 1.5 lbs. **B-644 \$29.95**



NEW! A PICTORIAL HISTORY OF COLLINS RADIO EQUIPMENT. By Jay H. Miller. The most comprehensive story of Collins amateur radio equipment told in hundreds of original photographs and in the words of men who made it happen. Includes: Full biography of company founder Arthur A. Collins • Hundreds of photographs, many in color • Early gear • History of SSNB development • More Perfect Communications • On The Air with Collins Radio. 175 pages plus cover, 1.5 lbs. **B-837 \$39.95**



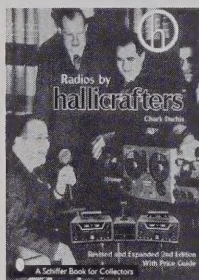
THE RADIO AMATEURS SATELLITE HANDBOOK. By Martin Davidoff, K2UBC. Published by The American Radio Relay League. Are you looking for the most informative and useful book ever written about ham radio satellites? Look no further. Interest in the amateur space program is booming, and there are more ham satellites than ever to choose from. Now is the time to get involved. 15 chapters, plus appendices with detailed profiles of all the active satellites, computer programs, web sites, FCC rules, a glossary and more. 370 pages, 1.9 lbs. **While supplies last.** **B-798 \$19.95**



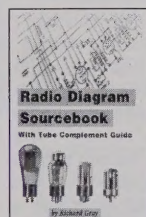
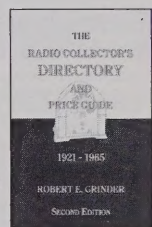
RADIO ART. By Robert Hawes. This colorful coffee-table picture-book traces the evolution of the home radio from the 1920's to the 1950's, with particular attention given to the cabinet as an art object. It features colorful, deco, novelty and outrageously styled radio sets from around the world. Although published in Britain, it includes about 40 American radios among the 260 sets pictured in full color. Hardcover. 128 pages, 2.0 lbs. **While Supplies Last** **B-614 \$10.95**



NEW! RADIOS BY HALLICRAFTERS - REVISED AND EXPANDED 2ND EDITION WITH PRICE GUIDE. By Chuck Dachis. This new, complete book covers every known Hallicrafters model and accessory. A comprehensive history of the company is provided, repair methods are discussed, and all the units are pictured and listed in almost 700 photographs. Technical specifications are provided in detail for each one, along with dates of production, customer options, color and design variations, and accompanying power sources and tube types. This book is perfect for anyone interested in the history of radio use and technology, and is absolutely indispensable for Hallicrafters collectors. A current price guide is included, compiled by the past two decades' most avid Hallicrafters collector. 235 pages 2.75 lbs. **B-832 \$29.95**

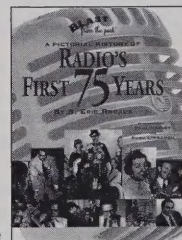


THE RADIO COLLECTOR'S DIRECTORY & PRICE GUIDE, Second Edition. By Robert Grinder. A thorough revision of the first edition, this edition has been expanded from 8,500 to 20,000 models covered, with the range of years covered increased from 1921-1941 to 1921-1965. Trade names covered have more than doubled to over 1400. 524 pages, 1.4 lbs. **B-691 \$26.95**



RADIO DIAGRAM SOURCE BOOK. With Tube Complement Guide. By Richard Gray. Need a wiring diagram to repair an old radio, or help identifying a make or model number? This book introduces the collector to various sources of early service literature. Lists over 10,000 U.S. made radios with tube complement, dial lamp and IF frequency used. 269 pages, 1.0 lb. **B-739 \$18.95**

RADIO'S FIRST 75 YEARS A Pictorial History. By B. Eric Rhoads. Get the story on who and what shaped the Radio industry. Almost 1,000 never-before-published photos of radio personalities from every era. This photo book covers Radio from its invention to the present day. This hardcover coffee-table book is a must for Radio lovers. It also includes a never-before-published "RadioFan" directory which gives names and addresses of clubs, museums, newsletters, and sources for old Radio shows, antique Radio collecting, and more! 463 pg, 3.6 lbs. **While supplies last.** **B-716 \$29.95**



RADIO HORN SPEAKER ENCYCLOPEDIA. By Floyd A. Paul. A comprehensive listing of every significant horn speaker made in the U.S. for 1920's radios, with background information on 10 major manufacturers. Includes over 120 photos. An excellent identification guide for collectors. 80 pages, 0.6 lbs. **B-362 \$15.90**

RADIO MANUFACTURERS OF THE 1920'S. By Alan Douglas. This monumental 3 volume work offers an outline history for each of the major radio manufacturers of the 1920's. It features the company principals and their factories, the financial ups and downs of the industry, and hundreds of pictures of radios produced up to 1930. Over 250 pages each volume. All softcover. 2.0 lbs. each.
V. 1 A-C Dayton through J.B. Ferguson B-385 \$24.95
V. 2 Freed Elsemann through Preiss B-534 \$29.95
V. 3 RCA through Zenith B-567 \$29.95



Set of all three **B-RADIO3 \$75.00**

**SHORTWAVE RECEIVERS PAST AND PRESENT.**

Communication Receivers 1942-1997, 3rd Edition. By Fred Osterman. Your comprehensive guide to over 770 short-wave receivers manufactured in the last 55 years. Tabletop, general coverage, amateur, short-wave and specialty receivers are covered. Whether you are a short-wave listener, amateur radio operator or radio collector, here is the information you need in an easy to use format. One hundred short-wave receiver manufacturers from the period of 1942 to 1997 are represented. 473 pages, 4.0 lbs.

B-782 \$24.95**TRANSMITTERS. Exciters & Power Amplifiers, 1930 - 1980.**

By Raymond S. Moore. A concise guide to American made HAM radio transmitters and amplifiers of the tube era. Covers kits and commercial transmitters with their original price and list of accessories. Included is a 5 page history of the development of amateur transmitters from original power oscillator types through the later filter SSB exciters and transmitters. 144 pages, 1.1 lbs.

B-725 \$21.95**TRANSISTOR RADIOS 1954-1968. By Norman Smith.**

Get ready for a nostalgic trip back to the heyday of portable music. Over 1,000 radios are featured in this book, from American manufacturers such as Admiral and Zenith and from Japanese manufacturers such as Hitachi, Realtone and Sony. All radios are identified by manufacturer, model number, number of transistors, special features, country of origin and date. A complete value guide is included to help the collectors. 160 pages, 2 lbs.

B-801 \$29.95**VOICES IN THE AIR: THE FASCINATION OF RADIO. By Robert Bonebrake.**

Anything interesting can turn into a hobby, but in addition to being interested, you must also be fascinated in order for it to become a lasting hobby. Then follows the knowledge of the subject and the satisfaction that comes with it. This journey from interest to knowledge to fascination to satisfaction is chronicled in this book. Has many illustrations, with examples and photographs, of many home-built radio projects. It begins with crystal sets in 1938 and continues to the present time. 174 pages, 1 lb.

B-810 \$12.95**WAKE OF THE WIRELESSMAN.**

By B.J. Clemons. The intriguing story of Dale Clemons and his inestimable contribution in pioneering radio and wireless telegraphic communication in the United States Merchant Marine in the early 20th century. The book reads like fiction, but is a true story based on the sea diaries of the author's father, as well as tales told to the author over the years. Rather than focus on hardware and history, she tells a powerful human story. 266 pages. 1.1 lbs.

While supply lasts. B-738 \$14.95**ZENITH RADIO: The Early Years 1919-1935.**

By Harold Cones, Ph.D, John Bryant, AIA with Martin Blankinship and William Wade. Zenith's "The Quality Goes in Before the Name Goes On" is one of the most recognized, and well earned corporate mottos in America. With access to the Zenith corporate archives and their discovery of the long sealed files of one of Zenith's founders, the authors present for the first time the documented story of the early years of Zenith. The authors present a wealth of never before published photographs, documents and information as well as color portraits of many Zenith radios of the era. Includes a database of valuable information which covers every radio produced by the company, along with a rarity and price guide. 192 pages, 2.0 lbs.

**B-770 \$29.95****ZENITH RADIO SERVICE MANUAL AND PARTS LIST.**

Re-print of early Zenith service manual. Includes schematics and parts lists for Zenith radios made from 1928 through 1939. Offers help with alignment procedures, antenna alignment, and gives parts lists along with tube layouts on most models. 510 pages, 2.6 lbs.

B-755 \$21.95

THE ZENITH TRANS-OCEANIC. By John H. Bryant, AIA and Harold N. Cones, Ph.D. The royalty of Radios. The definitive book of perhaps the most popular radio produced during the first 50 years of radio. Complete history as well as collecting and restoration hints. Full of pictures, many in color. 160 pages, 1.7 lbs.

B-689 \$24.95**NEW! THE COMPLETE GUIDE TO ANTIQUE RADIOS: Pre-War Consoles.**

By Mark V. Stein. This is the first and only comprehensive reference on console radios. From Admiral to Zenith, over 3,500 models are individually pictured, described and valued. Consoles listed begin with the 1929/30 production year and span through the end of production in 1942. As with the Machine Age to Jet Age series, the author has included tube and band count information and variations wherever possible. This invaluable reference also includes

an expanded resource section listing dealers, collectors, publications, experts/specialists, products/suppliers, restoration services and important websites. The author also provides important information about identification, grading/valuation and historic insights. Softbound laminate cover, 240 pages, 8.5" X 11", B&W format. 1.6 lbs.

B-852 \$29.95**PHONO & JUKEBOX****COLUMBIA PHONOGRAPH COMPANION, VOL. II.**

By Robert W. Baumbach. This book details the efforts and the accomplishments of the American Graphophone Company and its successors in the production and marketing of the talking machines marked under the Columbia banner, and variously referred to as Graphophones, Grafonolas or Phonographs. Covers all of the disc playing machines from the first in 1899 through the large and expensive machines of the great heyday of the windup phonograph to the beginning of the great depression. This book is intended to be a guide for collectors of any Columbia disc machine. It provides company history and interesting facts relating to the development of the company, its products and the industry as a whole. Hardcover. 257 pages, 1.5 lbs.

B-743 \$29.95**THE COMPLETE TALKING MACHINE, Third Edition.**

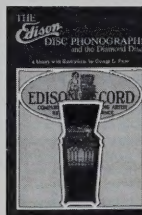
By Eric L. Reiss. For ten years this book has served as the definitive reference for repair and restoration of antique phonographs. The 2nd Edition continued the same careful analysis of the construction of spring motors, turntables, reproducers, cabinets and their associated parts, with a step-by-step guide to cleaning, lubricating and repairing of all mechanisms and cabinets. Volume 3 again expands with new chapters of how to identify fake machines and how to make home recordings on cylinders. Includes a glossary of phonograph terminology, biographical sketches of twenty individuals who were instrumental in the early development of the phonograph and company histories on Edison, Columbia, Victor and Zon-O Phone. Features an expanded identification guide with photos and descriptions of over 250 wind-up phonographs, and an updated price guide for over 350 outside-horn machines. 249 pages, 2 lbs.

B-800 \$29.95**LOOK FOR THE DOG.**

By Robert W. Baumbach. An illustrated Guide to Victor Talking Machines, 1901 to 1929. 326 pages cover every model of phonograph Victor produced, with illustrations and descriptions. Also contains a section on servicing notes. This is the most complete book on Victor phonographs available anywhere! 326 pages, 1.1 lbs.

B-646 \$19.95

THE SEEBURG ENGINEERING MANUAL. Edited by Mike Zuccaro. A compilation of Seeburg service information on the "Select-O-Matic" mechanism, featuring interviews with George Boesen, designer of the Tormat Selector, and Ed Meixner, Seeburg engineer. 48 pages, 0.5 lb.

B-668 \$14.95**THE EDISON DISC PHONOGRAPHS AND THE DIAMOND DISCS.**

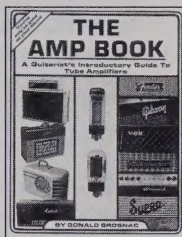
By George Frow. 296 pages describing all models, giving production figures, promotional schemes and extensively describing production processes for making discs. The most complete history of Edison disc phonographs ever published. Hardcover, excellent quality. 2.0 lbs.

B-311 \$34.95**THE EDISON CYLINDER PHONOGRAPH COMPANION.**

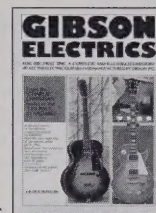
By George Frow. From the Naughty Nineties to the Roaring Twenties, The Edison Cylinder Phonograph caught most of the tunes and characters of the day. This book traces many models and follows them from production committee, early outlines and into manufacture. Includes illustrations and descriptions of each model from 1877 to 1929. Hardcover. 384 pages, 2.0 lbs.

B-312 \$39.95

THE AMP BOOK. A Guitarist's Introductory Guide to Tube Amplifiers. By Donald Brosnac. Covers what an amp is, how an amp works and what to look for in an amp. Includes history of tube amps from 1932 to the present with de-tailed information on the evolution of amps both internally and externally. Fender, Gibson, Gretsch, Vox, Ampeg as well as others are covered. 64 pages, 0.6 lb. **B-688 \$11.95**



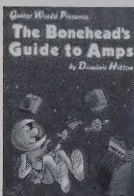
GIBSON ELECTRICS. By A.R. Duchossoir. The first book to present a complete and illustrated history of all guitars ever produced by one of the world's most prestigious musical instrument manufacturers. All info is based on Gibson's own literature and documents. Chapters include the different stages of evolution of the electric guitar, information on serial numbers, and players who helped build the Gibson Electrics reputation. Over 200 illustrations, 32 color pages, 2 lbs.



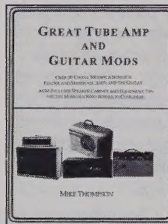
While Supplies Last.

B-816

\$22.95



NEW! THE BONEHEAD'S GUIDE TO AMPS. By Dominic Hilton. Presented by Guitar World Magazine. The ultimate book for everyone who wants a quick and easy to understand guide to amplifiers. You'll find out about: The history of amps • Construction and how amps work • Different types of amps, the sounds they make and how to use them • Which amp is right for you • New vs. used amps and what to look for when buying an amp • Tips and recommendations on how to get the most out of your amp. 78 pages, 0.5 lb. **B-854 \$9.95**



GREAT TUBE AMP AND GUITAR MODS. By Mike Thompson. Over 50 useful modifications for Fender and Marshall amps and the guitar. The author lets reader in on some neat little tricks that can be done to their equipment. All modifications are simple and can be done with easy to find parts. Also includes speaker cabinet and equipment tips for the musician who wishes to customize. 150 pages, 1.1 lbs. **B-737 \$12.95**

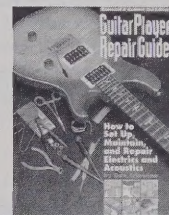


BLUE BOOK OF ELECTRIC GUITARS. By Steven Cheme. This 5th edition contains over 40,000 prices, including hundreds of photos and graphics to help identify most new and vintage electric guitars. Also has a lot of technical information and data, including serialization, to help both the novice and seasoned dealer/collector figure the most up-to-date electric guitar pricing and related information. 792 pages, 4.5 lbs. **While Supplies Last. B-812 \$29.95**

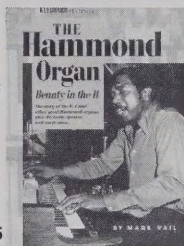
COMPLETE GUIDE TO GUITAR AND AMP MAINTENANCE - A Practical Manual for Every Guitar Player By Ritchie Fieger. From the author of "AMPS!" comes an essential survival guide for every guitar player and amp owner. Packed with concise, clearly written tips on troubleshooting and repairs, with straightforward, step-by-step instructions using readily available tools. Contains over 150 photos. 80 pages, 0.6 lb. **B-701 \$14.95**



GUITAR PLAYER REPAIR GUIDE. How to Set Up, Maintain, and Repair Electrics and Acoustics. By Dan Erlewine. This revised edition is a step-by-step manual to maintaining and repairing electric or acoustic guitars and basses. Players will master the basic maintenance and set up of a guitar. An advanced crafts-person will discover this to be a valuable reference source for complex procedures such as replacing nuts and frets. This second edition incorporates new techniques and tools, plus detailed repair information for specific models. 309 pages, 2.0 lbs. **B-784 \$22.95**



THE HAMMOND ORGAN. Beauty in the B. The Story of the B-3 and Other Great Hammond Organs, plus the Leslie Speaker, and Much More. By Mark Vail. This book celebrates the history and influence of the Hammond B-3 and its right-hand man, Leslie Speaker. It explains the tone-wheel system that renders the famous Hammond sound, and reveals secrets behind the B-3's drawbars, presets, pedalboard, percussion, and other unique features. Also features "25 licks you must know," plus tips from the masters of the B-3. 239 pages, 1.5 lbs. **B-788 \$24.95**



DAVE FUNK'S TUBE AMP WORKBOOK. Complete Guide to Vintage Tube Amplifiers. Volume 1 - Fender. By Dave Funk. A large, easy to read tube amp book, designed to be an invaluable reference to those working on or building their own tube amps. Learn how to approach a service job, the tools you'll need on your workbench, and how to use them. Loaded with cross-reference material, lookup tables, formulas and the information you'll need to know when your amp is working properly. 421 pages, 2.5 lbs. **B-732 \$38.95**

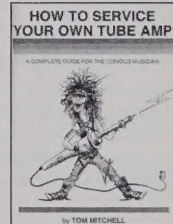


THE HIGH PERFORMANCE MARSHALL HANDBOOK. A Guide to Great Marshall Amplifier Sounds. By John Boehnlein. Includes chapters on standard amplifiers from 1962 to 1990, retubing for maximum performance, how to over-drive master volume and much more. 55 pages, 0.5 lbs. **B-696 \$15.95**

THE HISTORY OF MARSHALL. By Michael Doyle. The definitive account of the guitar manufacturer known as the "sound of rock." Includes complete listings of every product Marshall ever made, over 100 schematics, the history of the Celestion speaker and early catalog reprints. Hundreds of photographs, including 64 color plates. 254 pages, 2.1 lbs. **B-661 \$32.95**

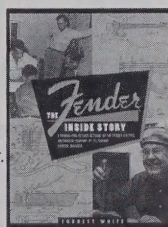


HOW TO SERVICE YOUR OWN TUBE AMP. By Tom Mitchell. A well organized and easy-to-understand approach to guitar amplifier repair covering basic electronics, reading schematics, understanding tubes and transformers, tube biasing and use of test equipment. Also provides 10 troubleshooting flowcharts, voltage charts for typical amplifiers, and many modifications that you can do yourself. Same as B-V578 but without video cassette. 250 pages, 2.3 lbs. **B-707 \$29.95**

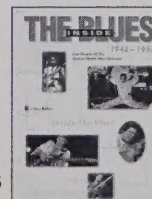


A DESKTOP REFERENCE OF HIP VINTAGE GUITAR AMPS. By Gerald Weber owner of Kendrick Amplifiers. He answers questions about vintage guitar amplifiers on topics such as biasing for output tubes and easy modifications. He includes an analysis of Fender classics such as the Tweed Champ, Tweed Deluxe, Deluxe Reverb, Super Reverb and others. Also included are schematics for Ampeg, Fender, Gibson, Hiwatt, Magnatone, Marshall, Rickenbacker, Silvertone and Vox amps. 500 pages, 1.5 lbs. **B-663 \$26.95**

THE FENDER INSIDE STORY. A Behind-The-Scenes Account of the Fender Electric Instrument Company by its Former General Manager. By Forrest White. Even though Leo Fender never learned to play guitar, he made the electric solid-body guitar a commercial success. Despite his style and conservative roots, his radical designs altered popular music forever. Much has been published about the Fender Electric Instrument Co., but Leo always wanted its story to be told "just the way it happened." Now, Forrest White, his friend and only general manager, offers a behind-the-scenes look at Fender. This book that sets the record straight and dispels the myths about the Fender Electric Instrument Co., a company that changed the look, sound, and personality of American music. 258 pages, 2.0 lbs. **While Supplies Last. B-785 \$22.95**



INSIDE THE BLUES. By Dave Rubin. This book captures the styles and techniques of four decades' worth of great electric blues guitarists. Features photos, biographies, discographies and explanations and notated examples of the rhythm and lead styles of legendary guitar players. Performers featured include: T-Bone Walker, B.B. King, Stevie Ray Vaughan, John Lee Hooker and many more. 176 pages, 1.5 lbs. **While Supplies Last. B-817 \$24.95**



INSIDE TUBE AMPS. The Book on Tube Amps

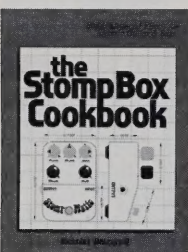
Technology. By Dan Torres. This book is written for musicians, not technicians. This book will help you get your personal sonic signature, and give you the knowledge to change it when your tastes change. Some approaches are new and experimental, some are very old. Looks at "standard practices" as well as tricks and techniques outside of the "perfect specs". 310 pages, 1.9 lbs.

B-733**\$34.95**

NEW! PROJECTS FOR GUITARISTS. This is a collection of 35 useful, inexpensive educational projects designed by Guitar Player magazine consulting editor Craig Anderton. Whether you're looking for a great sounding tube pre-amp, a de-hisser for your vintage effects, cool guitar rewirings, a fatter sound, a cord tester that catches intermittent problems, some adapters to interface with studio gear, or any of several other problem-solving or sound improving devices, this book has the answers. It also includes chapters on how to read schematics, and construction tips. 171 pages. 1 lb.

B-787**\$19.95**

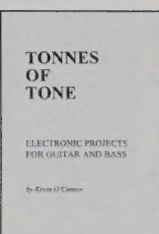
STOMPBOX. A History of Guitar Fuzzes, Flangers, Phaser, Echos, & Wahs. By Art Thompson. Musicians, engineers and entrepreneurs give behind-the-scenes tales of the events that led to the new guitar effects of the '60s, '70s and '80s. With their odd shapes, wild colors, and strange names, stompboxes and their stories finally get their credit. Over 200 photos. 159 pages, 1.0 lb.

B-786**\$24.95**

NEW! THE STOMPBOX COOKBOOK. By Nick Boscorelli. This book shows you how to build 38 advanced effects for electric guitar & bass, including soft-knee compressor with auto-variable attack & decay, stereo vibrato, spring reverb, quad parametric EQ, super sustainer, 'designer' tremolos, & custom fuzz, plus a wealth of ingredients to cook up new stomp boxes. Contains over 600 hundred photos & schematics. Softcover, 259 pages, 1.75 lbs.

B-834**\$29.95**

THE OFFICIAL VINTAGE GUITAR® PRICE GUIDE. By Alan Greenwood. From *Vintage Guitar*, America's largest and most recognized magazine on classic vintage guitar and amps. This authoritative and up-to-date guide offers thousands of market values on hundreds of brands and models of guitars, amps, basses, effects pedals and more. Fully indexed, easy to use and understand, and now complete with hard to find historical information on most brands. 207 pages, 1.3 lbs.

While Supplies Last.**B-762****\$19.95**

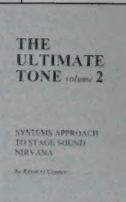
TONNES OF TONE. By Kevin O'Connor. A collection of projects for electric guitar and bass players. Save money by building your own acoustic preamp; build a two-channel tube preamp for guitar, and more. Construct a 15W tube power amp or a true class-A solid state amp. The "experimenter's power supply" is excellent for tinkering with tube circuits, containing separate AC heater, DC heater plate and bias supplies. Build a wide range tremolo circuit and an all-tube reverb unit. Circuit operation, construction, & layout guidelines are provided. Every project uses easy to find parts. 105 pages, 1.0 lb.

B-749**\$25.00**

THE TUBE AMP BOOK, 4th Ed. By Aspen Pittman. Newly revised and expanded, the 4th Edition contains company histories of guitar amp manufacturers. 460 pages of schematics for popular amps, tube data on commonly used audio tubes and 50 pages of "Vintage Fantasy" color pictures of collectible guitars and amps. 765 pages, 2.1 lbs.

B-581**\$29.95**

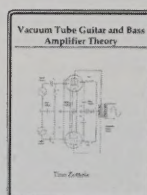
TUBE AMP TALK FOR THE GUITARIST AND TECH. By Gerald Weber. A compilation of articles written for *Vintage Guitar* magazine from 1993 to 1996. Includes sections with articles on servicing your guitar amp, modifications, and also includes a "Trainwreck" section full of articles written by Ken Fischer for *Vintage Guitar*. Forward is written by Billy F. Gibbons. 537 pages, 2 lbs.

B-773**\$29.95****THE ULTIMATE TONE****Modifying and Custom Building Tube Guitar Amps****By Kevin O'Connor****Two Great Volumes!**

Volume 1 - Offers the technician or hobbyist information for properly implementing guitar amplifier modifications. Topics include stage setups, amplifier brand surveys, vacuum tube and power supply operation, preamp circuits and master volume, tube type comparison, and effect loops. Includes an extensive discussion of switching methods. Includes data for 17 common tube types and for two Hammond Mfg. transformer model lines. Spiral bound, 395 figures. 368 pages, 2.5 lbs.

B-695**\$55.00**

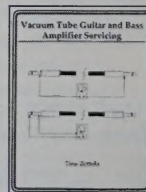
Volume 2 - The achievement of great, live sound is the premise used to explore modern high-gain guitar pre-amps; proper treatment of acoustic instruments; tube vocal PA's; dynamic bass gear; all types of tube, semi, hybrid and alternative power amplifier design; power supply mods that are "toneful"; simple switching methods; speaker cabinet design; getting the most from effects loops and chains; and, modular stage monitoring systems that work! Circuits are explained so the tinkerer can build or modify guitar equipment with confidence and success. Spiral bound. 200 figures. 250 pages, 1.9 lbs.

B-772**\$45.00****VACUUM TUBE GUITAR AND BASS AMPLIFIER THEORY.**

By Tino Zottola. Describes the history and operation of vacuum tubes as well as how they are used in guitar/bass amplifier circuits. Amplifier electrical and physical layout is then examined. The factors affecting amplifier sound are also described. Included in the appendices is useful data such as: resistor and capacitor codes, vacuum tube electrical data, wire gauge table, and musical scale frequency chart. 59 pages, 0.6 lb.

B-735**\$14.95****VACUUM TUBE GUITAR AND BASS AMPLIFIER SERVICING.**

By Tino Zottola. Guitar amp repair is split into several categories: User serviceable problems (fixable without chassis removal), dead and strange sounding amps. Includes sections on amp disassembly, preventative maintenance, special effects repair, signal tracing, component testing and replacement, bias adjustment, tube matching and amp mods. It's assumed the reader knows basic electronic theory, reading schematics, and can use tools and test equipment. 84 pp, 0.8 lb.

B-736**\$14.95****EARLY TELEVISION****NEW! COLLECTOR'S GUIDE TO VINTAGE TELEVISIONS.**

By Bryan Durbal and Glenn Bubenheimer. Current values for over 1400 postwar TV's, including 1940's consoles and tabletops, 1950's predictas and portables. 1960's JVC, Sony and Panasonic, through the hand held sets of the 1980's. Over 200 full color photos. 1 lb.

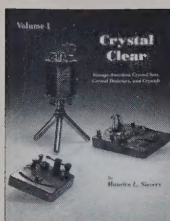
B-833**\$15.95****THE INVENTION OF TELEVISION.**

By Harry Shelton. Details the evolution of the television receiver from motion pictures and radio to its present day form. Covers the principles of early scanning disc systems as well as modern electronic systems and color TV. Also follows the rise of the television networks. 140 pages, 0.4 lb.

While Supplies Last.**B-545****\$12.95**

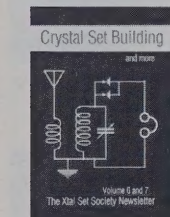
TUBE THE INVENTION OF TELEVISION. By David E. Fisher and Marshall Jon Fisher. Who invented television? How did the invention come to be? Fifty years after television's commercial debut, TUBE answers these questions and more. An anecdotal history that reads like an adventure story, TUBE follows the competing and criss-crossing lives of television's primary inventors: John Logie Baird, Philo T. Farnsworth, Vladimir Zworykin and David Sarnoff. Hard cover, 427 pages (plus 16 pages of black & white pictures), 1.9 lbs. **Half Price While Supplies Last.**

B-760**\$15.00**



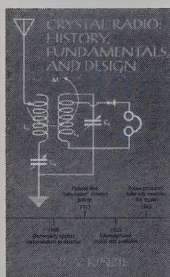
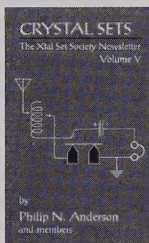
CRYSTAL CLEAR, Volume 1 - Vintage American Crystal Sets, Crystal Detectors and Crystals. By Maurice L. Sievers. A comprehensive guide to crystal sets, detectors and crystals produced in the United States from 1920 to 1955. Lists over 500 crystal sets and 330 detectors made by over 400 different companies. Includes over 400 photos of early sets, plus hundreds of advertisements. 282 pages, 2.2 lbs. **B-568 \$29.95**

CRYSTAL CLEAR, VOLUME 2 - Vintage American Crystal Sets, Crystal Detectors and Crystals. By Maurice L. Sievers. A companion to Volume 1. Includes many ads, illustrations and details which would not fit in Volume 1. In addition to many entirely new listings, missing details and a few corrections to listings in Volume 1 are included. 244 pages, 1.9 lbs. **B-698 \$29.95**



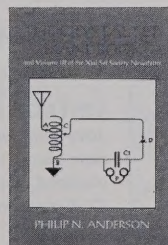
CRYSTAL SET BUILDING AND MORE The Xtal Set Society Newsletter, Volume 6 & 7. Edited by Rebecca Hewes. Crystal Set Radios? Yes, that's right. Over ninety years since their invention, Xtal sets are still capturing people's attention. Every other month, the Xtal Set Society publishes a newsletter with projects and articles from members. This compilation contains all issues from January 1996 through November 1997. Focus is on simple old - time, elegant radio circuits you can build from scratch, with some circuits and one tubers. 168 pages, 0.5lb. **B-797 \$15.95**

CRYSTAL SETS. The Xtal Set Society Newsletter, Vol. V. By Philip N. Anderson & members. The Xtal Set Society, started in 1991, is dedicated to once again building and experimenting with radio electronics, through the use of the crystal set. This volume contains articles from 6 of the society's newsletters from 1995. Articles include design of unpowered AM receivers using rocks, radio outfit in a headset, Marconi 107-A tuner and more. 88 pages, 0.3 lb. **B-717 \$11.95**



CRYSTAL RADIO. History, Fundamentals and Design. By P. A. Kinzie. Published by the Xtal Set Society, this book chronicles the fascinating history and development of the crystal detector, including the reasons for its brief dominance of the radio market after the turn of the century. Starting with the discovery of solid-state rectification and then through the development of the crystal detector the reader learns about great inventors such as Pickard, Braun, Dunwoody and others. Radio fundamentals such as antennas, ground, lightning protection, tuned circuits, and detection are covered for the beginner. The unending compromise between selectivity and sensitivity is discussed for the crystal set designer. Advanced topics such as the use of multi-tuned circuits and wave traps follow for the more experienced experimenter. 119 pages, 0.3 lb. **B-729 \$12.95**

THE CRYSTAL SET HANDBOOK. By Philip N. Anderson. A practical "how-to" book of crystal radio construction. Contains a simple oat box project, formulas for coil inductance and coil Q, a procedure for measuring coil capacitance and theory for L-C circuit matching. 130 pages, 0.5 lb. **B-673 \$11.95**

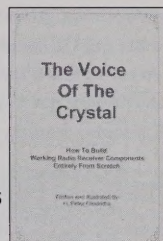


CRYSTAL SET PROJECTS: 15 Radio Projects You Can Build. Edited by The Xtal Set Society. A collection of 15 radio projects designed by members of the Xtal Set Society. Includes high tech and low tech, vintage and modern, loop antennas and short-wave bands. Great weekend or evening projects. Step back to the roots of radio. 160 pages, 0.5 lb. **B-757 \$14.95**

CRYSTAL SET LOOPERS, A 3 TUBER & MORE, Vol. 8 Edited by the Xtal Set Society. The biggest and best volume yet of the Society Newsletter. Has complete directions for building 5 crystal radios, a 3 tube radio and a homebrew variocoupler. Learn about biasing effects on diode performance and crystal detector experiments. Discover crystal set secrets by reading letters from members all over the world. This book continues to focus on simple, old-time, elegant radio circuits. Includes projects you can build, schematics, radio secrets and theory articles. Build a Short-wave looper, Antenna Tuner/AM trap, a Crystal Set from a deodorant stick and more. 128 pages, 1 lb. **B-819 \$15.95**



NEW! THE VOICE OF THE CRYSTAL By H. Peter Friedrichs. How to build working radio receiver components entirely from scratch. Contains basic theory of crystal radio operation including description of simple headphones, characteristics of a good detector, capacitor characteristics, coil designs, simple tuners and antennas. 183 pages. 0.5 lb. **B-851 \$14.95**

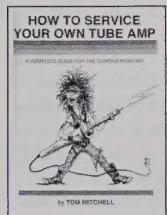


VIDEOS



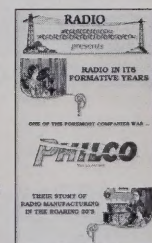
AROUND THE DIAL - Vintage Radios - For those interested in the history, collecting and restoring of classic and antique radios. Volume 1 covers Admiral through Grunow. Volume 2 covers Halton through Zenith. Over 90 manufacturers represented. Each video approximately 1 hour. VHS cassette, 1 lb. **B-V558 Vol 1 \$29.95**
B-V559 Vol 2 \$29.95

A CENTURY OF SOUND 1847-1947 - From the music box to the player piano; Gramophone to the Victorola; the birth of Broadcasting to the Golden Age of radio; the earliest record the time of the colorful plastic jukeboxes, "A Century of Sound" is a wonderful journey. You will see and hear what people experienced during the years of 1847-1947. 45 minutes. VHS cassette, 1 lb. **While Supplies Last. B-V560 \$24.95**

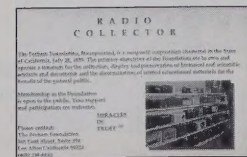


HOW TO SERVICE YOUR OWN TUBE AMP. By Tom Mitchell. A well-organized and easy-to-understand approach to guitar amplifier repair covering basic electronics, reading schematics, understanding tubes and transformers, tube biasing and use of test equipment. Also provides 10 troubleshooting flowcharts, voltage charts for typical amplifiers, and many modifications that you can do yourself. 250 page manual with accompanying VHS video cassette. 2.5 lbs. **B-V578 \$69.95**

PHILCO. The story of how Philco began making radios in the late 1920s and became the largest radio manufacturer in the U.S. through the 1930s. Includes a tour of the Philco factory filmed in 1929, showing how a radio goes through production, step-by-step. 28 minutes, VHS cassette. 1.0 lb. **B-V613 \$19.95**



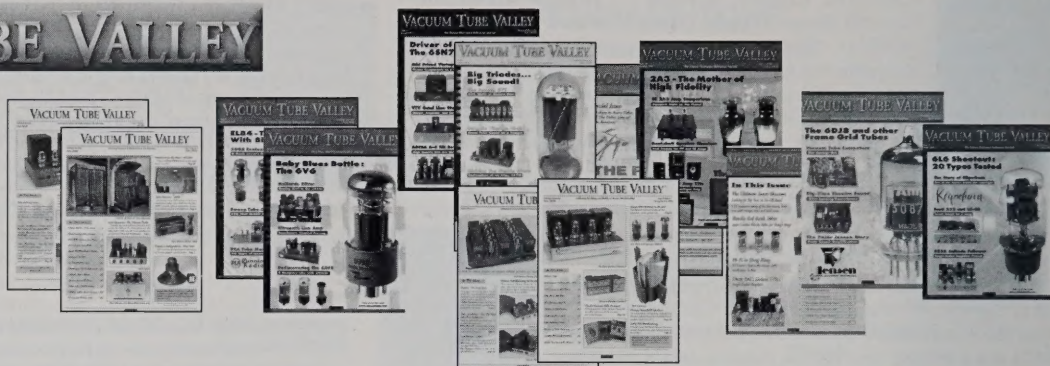
RADIO COLLECTOR. "Radio Collector" originally aired on PBS television as a 5-part series and was nominated for an Emmy, best informational series. The 130 minute program covers radio history, collecting and restoration techniques. It includes pictures of many collectible radios, as well as interviews with several well-known California collectors. 130 minutes, VHS cassette. 1.0 lb. **B-V556 \$31.95**



VACUUM TUBE VALLEY

Edited by Charles Kittleson

Very high quality quarterly publication for electronic enthusiasts interested in the colorful past, present and future of vacuum tube electronics. All issues still available, get the whole set. Check with us for the new quarterly issues as they come out during the year. Fantastic reading and pictures.



Warning! Once you read one, you'll want them all!

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B-224 \$10.95

VACUUM TUBE VALLEY SET OF 12 VOLUMES - Buy volumes 1 through 12 of Vacuum Tube Valley and save 10% off buying individually. 4 lbs.
B-VTV12 \$129.60

OTHER BOOKS BY CHARLES KITTLESON



VINTAGE HI FI PRICE GUIDE 2000-2001
Newly updated, a companion price guide to the Hi Fi Spotter's Guide I & II. Shows approximate collector values for the most popular vintage amps, pre-amps, tuners, and speakers: MCINTOSH, MARANTZ, FISHER, SCOTT, LEAK, JBL, WESTERN ELECTRIC, JENSEN, and many more. 23 pages. 0.5 lbs.

B-841 \$19.95



VINTAGE HI-FI SPOTTER'S GUIDE, VOL. 1 Supplement to above book covering 1925-1963 vintage Hi-Fi components. Includes amplifiers, pre-amps, speakers, phonographs, receivers and other equipment not covered in volume 1. 88 pages, 0.6 lb.

B-639 \$19.95

VINTAGE HI-FI SPOTTER'S GUIDE A copy of catalog pages and advertisements of 1950-1962 vintage Hi-Fi components, providing a valuable resource for identification and information. Includes Fisher, Eico, Heathkit, McIntosh, Scott, Harman-Kardon, Marantz, Pilot, Dynaco, Radio Craftsmen and others. 87 pages, 0.6 lb.

B-597 \$19.95



AN APPROACH TO AUDIO FREQUENCY AMPLIFIER DESIGN.

First published in 1957 by the Valves and Electronics Department of General Electric Company of England, this book covers the essential details and circuit diagrams of a wide range of audio frequency amplifiers from a 5 watt ultra-linear to an 1100 watt Class AB2 amplifier. All designs are based on vacuum tubes. Full parts list accompanies each schematic. 126 pages, 0.6 lb.

B-679

\$19.95


NEW!

THE ART OF THE AMPLIFIER. By Michael Doyle. Pays tribute to the history and beauty of generations of amplifiers with nearly 200 stunning full color photos. Coverage of Ampeg, Fender, Marshall, Mesa Boogie, Orange, Selmer, Soldano, Vox and others. 80 pages, 0.8 lb.

B-855

\$22.95



AUDIO! AUDIO! By Jonathan Hill. A comprehensive directory of classic audio amplifiers and control units. Contains intimate details of over 850 different models from nearly 150 British manufacturers. It's a 1990's rediscovery of something many people in the golden age of hi-fi knew about; that given the right equipment, British valve amplifiers look and sound pretty amazing. If you are a collector you can look up specifications and information on the models you might have in your collection or simply dream about those you have not!! 95 pages, 1.5 lbs.

B-815

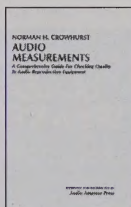
\$18.95

AUDIO MEASUREMENTS. By Norman H. Crowhurst.

This book begins with measurement techniques and follows with a full discussion of all manner of test equipment. Although it deals with the equipment of the day, most based on vacuum tubes, much of that equipment is still available. Fully indexed, the book is a comprehensive and informative volume on determining the quality and performance level of almost any piece of audio equipment. 223 pages, 1 lb.

B-814

\$12.95

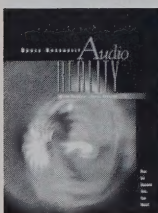


AUDIO REALITY By Bruce Rozenblit There are 6 projects in this book that you can build. Contains complete schematics, parts lists and circuit explanations. All design techniques are revealed. In addition the author shares tips and procedures for working with sheet metal and wiring. Projects include: the patented Transcendent

OTL in both 25 and 80 watt version, the grounded grid preamp, the super compact 150 watt amp, the cathode follower single-ended amp, and a new phono preamp design. This book has sections on conductors, connectors, speaker cables, damping systems, feedback, vacuum tubes and more. 128 pages, 1 lb.

B-818

\$29.95



BACK-TO-BASICS AUDIO. By Julian Nathan. A thorough yet approachable handbook on audio theory, practice, and allied electrical systems. Electrical principles are first discussed in easy to understand terms as a basis for understanding audio components and equipment, covered in hands-on style in the rest of the book. Elements of home theater audio and projection are also addressed in practical terms. 344 pages, 1.5 lbs.

While Supplies Last.

B-806

\$29.95

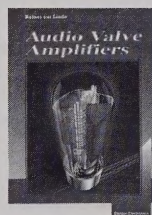
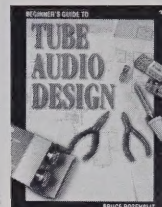
PRICE REDUCED



BEGINNER'S GUIDE TO TUBE AUDIO DESIGN. By Bruce Rozenblit. Are you interested in tube audio but don't know where to start, or are you already using tubes but don't know what's going on in the circuit? Rozenblit describes with simple clear explanations what a tube is, how it works, how to read characteristic curves and understand specifications. He then discusses one stage amplifiers, gain circuits, negative feedback, power supplies as well as a tour of amplifier parts of all types. 132 pages, 1.0 lb.

B-761

\$24.95



BUILD YOUR OWN AUDIO VALVE AMPLIFIER. By Rainer zur Linde. Whether it is nostalgia, interest in technical parameters, the appeal of a gleaming amplifier chassis with softly glowing valves, or the firm conviction that the sound of a valve amplifier cannot be bettered, interest in building your own tube audio equipment is growing. Includes construction projects for pre-amplifiers, power amplifiers and musical instruments amplifiers. Aimed at the practical audio/hi-fi enthusiast, this book offers much information on the operation on tubes and includes a chapter on the history of the tube. 251 pp, 1.1 lbs.

B-727

\$28.00

ELECTRONIC CLASSICS Collecting, Restoration and Repair. By Andrew Emmerson. Vintage radio, television, and hi-fi offer specific challenges. Some of these include buying, restoring, collecting, sourcing parts and repairing. This book covers all of these aspects and the technical side as well, making it the most comprehensive coverage available. 1.5 lbs.

B-805

\$39.95



EVOLUTION OF THE AUDIO RECORDER. By Phil Van Praag. Finally, a comprehensive guide to the audio recorder, this book explains the mysteries and tracks the evolution of the audio recorder. Provides repair and restoration guidelines, buying tips, identification criteria and pricing guidelines. Covers over 125 brand names, with over 500 photos and illustrations. The definitive guide to vintage wire and tape recorders. 500 pages, 1.1 lb.

B-759

\$39.95

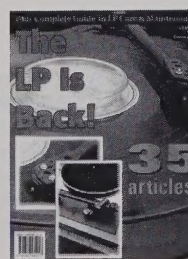
HOME AUDIO. Choosing, Maintaining and Repairing Your Audio System.

By Andrew Yoder. Don't invest in a home entertainment system until you read this book. The author of *Auto Audio* tells exactly how to put together the custom system of your dreams. Chapters cover: choosing a system, amplifiers, tape decks, digital discs, turntables, speakers, speaker enclosures, filters and crossovers, wire, antennas, shortwave, antique audio and repair. 381 pg, 1.8 lbs.

While supplies last.

B-796

\$19.95



THE LP IS BACK! From the pages of *Audio Amateur* magazine and other sources, absolutely everything the serious LP music collector needs to get the most out of both vintage records and the highest quality new pressings. Articles cover: Cleaning discs, How to build a cleaning machine, Calibrating and maintaining your tonearm and cartridge, Equipment which will improve the quality of long play record listening. Collected from the high point of this old-new again technology, *The LP is Back!* brings a wealth of information to help you keep your equipment in top form and help you understand and appreciate the best in new products available from cartridges to turntables. 1 lb.

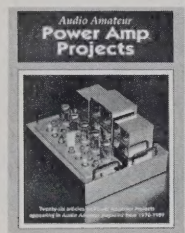
B-823

\$12.95



MULLARD CIRCUITS FOR AUDIO AMPLIFIERS. A reprint of a 1959 publication of Mullard Ltd., detailing high-quality circuits for audio amplifiers, pre-amplifiers and other stereophonic reproduction equipment. These designs were originated by Mullard engineers at the Mullard Applications Research Laboratory, and originally appeared in various magazine articles with notes on construction and assembly. 136 pages, 1.0 lb.

B-655 \$16.95



POWER AMP PROJECTS: 26 Articles on Power Amplifier Projects Appearing in Audio Amateur Magazine from 1970 - 1989. Re-printed articles on amplifiers for the home (both tube and solid state), amplifiers for a car and even an electrostatic speaker system. Original designs as well as upgrades to older equipment. Article authors include Roger Sanders, Nelson Pass, Reg Williams, Erno Borbely and more. Altogether this book offers designs from authors from six countries to fit almost any need for the resourceful amateur who prefers the pleasure of building his or her own. 201 pages, 1.1 lbs.

B-754 \$19.95

PRINCIPLES OF POWER A Practical Guide to Tube Power Amplifier Design.

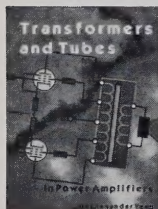
By Kevin O'Connor. Offers a simplified method for designing tube power amps for audio. Tube operation is explained, as are circuit principles. Class-A or B, cathode, fixed bias, and push-pull and single-ended designs are covered, as are many front-end circuits. Includes designs using off-the-shelf transformers and current production tubes. Power outputs of 15 to 400W are depicted using pentodes and true triodes. Also, covers power supplies, selected tube data, and information on Hammond and Plitron transformers. 210 schematics. 221 pages, 1.7 lbs.

B-726 \$35.00

PRINCIPLES OF POWER

A PRACTICAL GUIDE TO TUBE POWER AMPLIFIER DESIGN

By Kevin O'Connor



TRANSFORMERS AND TUBES IN POWER AMPLIFIERS.

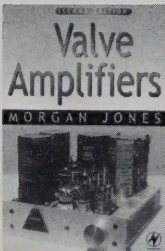
By Menno vander Veen. Covers in detail the use of transformers in tube audio circuits. Starts with the basics and works up to the complex, including mathematics and formulas used for transformer applications. Attention is given to toroidal transformers, but the information can be applied to all tube amplifiers. 60+ pages, 1.1 lbs.

B-740 \$26.00

VALVE AMPLIFIERS, SECOND EDITION

By Morgan Jones. Builds on the strength of the first edition; do-it yourself basics, circuit analysis, theory, design principles, construction techniques, etc. This expanded edition has new sections on output transformer problems and heater regulators, and three new projects, including a low-noise singled-ended LP stage. 2 lbs.

B-838 \$49.95



VALVES FOR AUDIO FREQUENCY AMPLIFIERS. With Details for Building 8 Circuits.

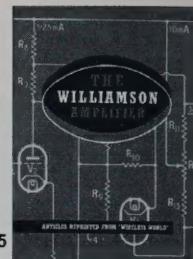
Reprinted from the Philips Technical Library, by Audio Amateur Press. Philips, one of the world's oldest tube manufacturers, offered this manual for enthusiasts in 1954. It's a practical volume for building quality audio amplifiers. Topics include; using the operating data provided, feedback, tone control, the output transformer, amplifier input circuits, microphone, gramophone pickups, & loudspeakers. There are pointers to keep control of hum, noise, interference and heat to avoid noisy and destructive operation. 144 pages, 0.5 lbs.

B-779 \$16.95

THE WILLIAMSON AMPLIFIER.

By D.T.N. Williamson. In 1947 Williamson began the high fidelity movement with his power amplifier, using high quality push/pull output tubes, a special output transformer and a highly filtered power supply. In the mid-1950's Wireless World published his articles on amplifier, pre-amp and tuner design. This reprint contains data on winding your own transformers, chassis layout diagrams and practical advice on building amplifiers. 37 pages. 0.3 lb.

B-560 \$5.95



SPEAKERS

THE ELECTROSTATIC LOUDSPEAKER DESIGN

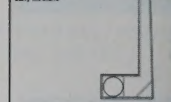
COOKBOOK. By Roger R. Sanders. This volume is an encyclopedic exploration of all the important issues, tradeoffs, and technical questions involved in building electrostatic speakers. Construction advice for both flat and curved panels is offered, along with plans for the necessary interfaces, drive requirements, and power supply and crossover suggestions. Sure to be a must for all speaker builders. 202 pages, 1.1 lbs.

While Supplies Last. B-721 \$34.95

THE ELECTROSTATIC LOUDSPEAKER DESIGN COOKBOOK

by ROGER R. SANDERS

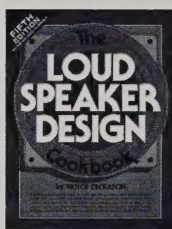
With a Foreword and Design by Henry McClellan



INTRODUCTION TO LOUDSPEAKER DESIGN.

By John L. Murphy. For all hobbyists, students and engineers that are interested in an overview of the technology of loudspeakers. Topics include design tradeoffs, spatial loading, diffraction loss, cavity effect and enclosure construction. There is also a complete chapter about crossover design. 166 pages, 1 lb.

B-811 \$24.95



THE LOUDSPEAKER DESIGN COOKBOOK, FIFTH ED.

By Vance Dickason. With more than 40,000 copies in print in three languages, this venerable standby is easily the world-wide best seller in its field. Newly updated and expanded, with additional chapters on auto sound and home theater, this fifth edition promises to retain the LDC's position at the very top of the speaker information field. Popular with people of all ages, all degrees of expertise, and all types of audio interest. 142 pages, 1.3 lbs.

B-722 \$34.95



LOUDSPEAKER PROJECTS #1. 19 Top Quality Designs You Can Build.

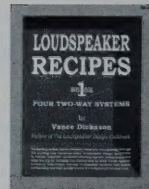
From Speaker Builder. This special is the first in a series of loudspeaker construction project issues translated from the Dutch electronics magazine, Elektuur. Included are nineteen high quality do-it-yourself loudspeaker projects featuring all information: instructions, parts lists, a schematic of the crossover and photos and diagrams as needed to complete each project. Performance measurements are also available for each project. 1997, 89 pages, 8" x 10-1/2", 0.6 lbs.

B-783 \$6.95

LOUDSPEAKER RECIPES, BOOK 1.

By Vance Dickason. Lays a firm groundwork, both theoretical and practical, for building as may varied and successful two-way loudspeakers as you wish. Helps you look for the right driver characteristics to be paired successfully with the right crossover components and also how to fix any anomalies which may trouble your particular choices. This book benefits from the latest techniques for computer-aided design, but is also rich in proven construction practices for building practical systems. 112 pages, 1 lb.

B-813 \$14.95

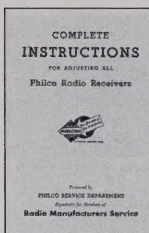


1928 RADIO TROUBLESHOOTING: A complete and Practical Work on Radio Receiver Troubles and How to Cure Them.

By Enno R. Haan. A re-print of great 1928 nuts and bolts book by then editor of Popular Mechanics. Within each chapter are informative details on tube testing and rejuvenation, filament circuit troubles, how to neutralize a neutrodyne, fixing open circuited loudspeakers, care of headphones and much more. Includes a troubleshooting section and six pages of tube specifications for types such as UX201A, Ceco A,H and K, DeForest DV-5, DL-4, DL-2 and others. Many great line art illustrations. 317 pages, 1.1 lb. **B-766 \$12.95**

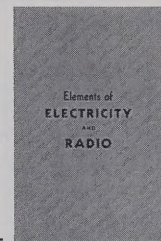
1934 OFFICIAL SHORTWAVE RADIO MANUAL.

Edited by Hugo Gernsback. A high-quality reprint of Gernsback's 1934 "Complete Experimenter's Set-Building and Servicing Guide," including a "Full Directory of All Short Wave Receivers." Contains schematics of over one hundred different commercial receivers, along with a construction section showing how to build many early short wave receiving and transmitting circuits. 260 pages, 1.7 lbs. **B-390 \$15.95**



COMPLETE INSTRUCTIONS FOR ADJUSTING ALL PHILCO RADIOS. Reprint of 1934 factory alignment instructions covering all Philco receivers to that time. Shows chassis layouts and adjustment locations for over 50 models. 35 pages, 0.3 lb. **B-554 \$5.95**

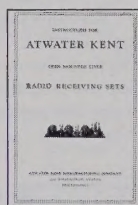
ELEMENTS OF ELECTRICITY AND RADIO. Re-print of the original basic electricity and electronics course from the US Navy. Has chapters on mathematical principals (everyone's favorite!), to elementary definitions and ohms law, to applications of vacuum tubes. Also has commonly used charts and tables. If you're interested in electronics, but need to start at the beginning, this book is for you. Great WW II stuff; over 50 years old, but still good info. 205 pages, 0.7 lbs. **B-758 \$10.95**



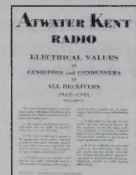
ATWATER KENT RADIO SERVICE MANUAL. A reprint of the 1928 A.K. factory service manual, covering models 10, 10B, 12, 20, 20C, 30, 32, 33, 35, 36, 37, 38, 40, 42, 44, 48, 49, 50 and 52. Spiral bound. 98 pages, 0.8 lb. **B-356 \$13.95**



ATWATER KENT RADIO PARTS LIST. A companion book to the 1928 A.K. Service Manual (B-356), this reprint shows chassis views and parts identification for all the models listed above. Spiral bound. 64 pages, 0.5 lb. **B-357 \$12.95**



ATWATER KENT RADIO, ELECTRICAL VALUES OF RESISTORS & CONDENSERS. Reprint of 1932 Atwater Kent special service manual gives values for resistors and condensers used in every receiver up to 1933. This hard-to-find information is normally not given on Riders or original A.K. schematics. Values may be looked up by A.K. part number or radio model number. 24 pages, 0.1 lb. **B-574 \$7.95**



SET OF THREE A.K. BOOKS - SAVE OVER 10%! B-AKSET \$31.35

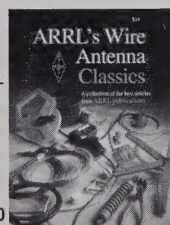
NEW! INSTRUCTIONS FOR ATWATER KENT OPEN MOUNTED RADIO RECEIVING SETS.

High quality reprint of a 1929 Atwater Kent booklet showing photos and battery hook-ups for 14 different breadboard receivers. 12 pages, 0.2 lb. **B-600 \$6.95**

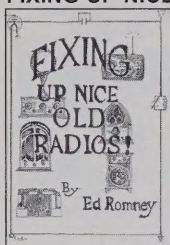


ANTIQUE RADIO RESTORATION GUIDE, 2nd Ed. By David Johnson. Teaches basic technique for troubleshooting and repairing old radios, refinishing cabinets, and following necessary safety precautions. Also contains useful information such as sources for parts, schematics, a glossary of terms and more. 160 pages, well illustrated. 1.0 lb. **B-627 \$17.95**

ARRL'S WIRE ANTENNA CLASSICS A collection of articles from ARRL Publications Hung high or low, wires are the best antennas to use to get on the air easily and inexpensively. Hams who have built their own antennas can definitely tell you that wire antennas can give top notch performance. In this book you will find proven antenna designs from QST and other ARRL publications. Has chapters on Dipoles, Loops, Collinear, Wire Beams, and Receiving Antennas. 1 lb. **B-820 \$14.00**



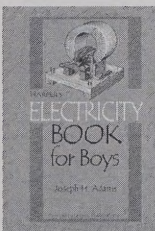
FIXING UP NICE OLD RADIOS! By Ed Romney. Easy to understand guide to antique radio repair covers everything from crystal sets to the Scott 800B! Uses photos of the insides of popular collectible sets to cover actual repair jobs in detail. Includes AK, Zenith, Bosch, Scott, National, Hallicrafters, Crosley 50, Radiola III, 17, 25, R-28, Philco and others. Explains Wunderlich, AVC, crystal filters, Scott and Zenith push-buttons and band-switches, alignment and more. 8 1/2" x 11" spiral bound. 170 pages, 1.2 lbs. **B-549 \$33.00**



HAMMARLUND SHORT WAVE MANUAL. Quality reprint of the Hammarlund 1937 Short Wave Manual, contains instructions for building 12 different, 1, 2 and 3 tube short wave receivers, complete with pictures, schematics and parts lists. 32 pages, 0.3 lb. **B-519 \$4.95**



HARPER'S ELECTRICITY FOR BOYS. By Joseph Adams. This illustrated reprint from 1907 is part of the Harper's "Tell Me How" Series of books. It has chapters on cells and batteries, push-buttons and switches, the telephone, telegraph and frictional electricity, just to name a few. You receive simple step-by-step instructions on how to build everything from telephones to electroplating tanks. Also has a lot of plans for building dynamos, telegraph keys and batteries. 407 pages, 1.0 lb. A great gift for boys and girls! **While supplies last. B-780 \$19.95**



THE HOW AND WHY OF RADIO APPARATUS. By H.W. Secore. A 1922 treatise on the various components used in radio construction including transformers, condensers, spark gaps, inductances, tuners, detectors, telephone receivers and radio amplifiers. Also included: how to make a wave meter and decremeter and how to measure inductance. 160 pages, 0.6 lb. **B-710 \$8.95**

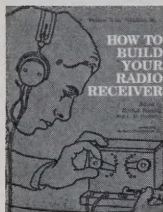


HOW TO BUILD THE TWINPLEX REGENERATIVE RECEIVER. By T.J. Lindsay. You can build the 1934 classic Doerle Twinplex. A single tube regenerative receiver powered by batteries! Simple, stable, sensitive and inexpensive. Great project for beginners or those who remember the joy of making your own radio. Includes designs for two other Twinplex receivers, one tube and one solid state. 63 pages, 1.0 lbs. **B-791 \$7.95**



HOW TO BUILD YOUR FIRST VACUUM TUBE

REGENERATIVE RECEIVER. By T.J. Lindsay. This book will coach you through building your first regenerative receiver. Learn the practical aspects of finding old components and using them toward your goal of building your own little radio. The set described is a real working receiver that was built from salvaged material on hand. 127 pages, 0.5 lbs.

B-774**\$39.95**

HOW TO BUILD YOUR RADIO RECEIVER. Classic construction text from 1924. Includes instructions on how to build 7 different receivers ranging from crystal sets to regenerative superhets. Aimed at beginners in 1924, includes section on 44 symbols commonly found in radio circuit diagrams. We wish we could supply all the parts needed in the projects, but we can't! 100 pages, 0.7 lbs.

B-699**\$8.95**

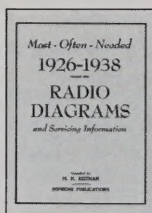
HOW TO MAKE A NEUTRODYNE RECEIVER. By F. F. Webb. A re-print of 1925 book which shows you how to build a radio like those used before the superheterodyne days. 12 chapters cover topics such as advantages of Neutrodyne, description of a neutrodyne set, vacuum tubes used, how to build the neutroformer, neutralizing condensers, neutralizing the set, antenna for set, operating and troubleshooting. Information can be used to build a set from scratch or to help you restore an original. 59 pages, 0.5 lbs.

B-763**\$6.95****MANUFACTURE OF WIRELESS COMPONENTS.**

Reprinted by Lindsay Publications. Machinery's industrial secrets. Selected articles from early issues of Machinery Magazine revealing secrets of manufacturing. Articles include making radio parts, honeycomb coils for radio reception and winding resistance coils. 63 pages, 0.8 lbs.

While Supplies Last.**B-808****\$6.95**

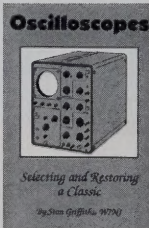
MOST OFTEN NEEDED 1926-1938 DIAGRAMS. A reprint of Morris Beitman's Supreme Publications book, showing circuit diagrams for 600 of the most commonly found radios of that time. A valuable resource for restorations. 240 pages, 1.4 lbs.

B-307**\$19.95****OLD TIME RADIOS! RESTORATION AND REPAIR.**

By Joseph J. Carr. A well-written book on the history, theory and practical operation of old-time radio sets, with detailed instructions on how to repair them. Included is information on how vacuum tubes work, radio troubleshooting, alignment, test equipment, and repairing water damage. 256 pages, 1.0 lb.

B-570**\$19.95****OSCILLOSCOPES: SELECTING AND RESTORING A CLASSIC.**

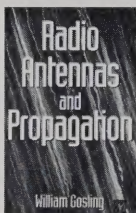
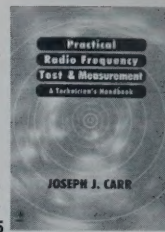
By Stan Griffiths. The complete book of Tektronix oscilloscopes from 1950 through the early 1970s. Contains pictures and detailed descriptions of every model in the Tektronix line, along with information and tips on restoring these classics. 372 pages, 1.0 lb.

B-631**\$24.95**

PHILCO CONDENSERS AND MORE. By Ray Bintliff, W1RY. Provides detailed data for Philco Bakelite block condensers, metal-cased condensers and tone controls. Pictorial guides show electrical connections and capacitor values. More than 300 illustrations. 68 pages.

B-830**\$14.95****PRACTICAL RADIO FREQUENCY TEST AND MEASUREMENT, A TECHNICIAN'S HANDBOOK.**

By Joseph J Carr. Teaches readers the basics of performing the tests and measurements used in radio-frequency systems installation, proof of performance, maintenance, and troubleshooting. Anyone interested in gaining more practical proficiency with RF, whether engineer, technician, amateur radio buff, or hobbyist, needs a copy of this book. Joseph Carr, himself an accomplished practitioner in this field, examines the instruments used in various types of measurement before moving on to specific measurement methods. 348 pages, 1 lb.

B-836**\$34.95****RADIO ANTENNAS AND PROPAGATION.**

William Gosling. This book is a modern, comprehensive, and system-oriented text on radio engineering by a pioneer in the field. It covers radio system physics, radio antennas and propagation. This book is a must for those that are serious about radio.

B-809**\$29.95****PRICE REDUCED - SAVE \$10.00!**

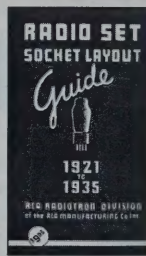
RADIO-CRAFT, 50 YEARS OF RADIO. Edited by Hugo Gernsback. A reprint of Gernsback's 1938 special issue of Radio-Craft magazine which commemorated the first 50 years of radio. Contains the reminiscences of radio pioneers DeForest, Sarnoff, Conrad, Crosley, McMurdo Silver and others, as well as the famous Gernsback predictions for the next 50 years. Also details the progression of the vacuum tube, mileposts in television and famous early radio circuits. 144 pages, hundreds of photos. 1.2 lbs.

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RADIO FOR THE MILLIONS. Prepared by the Editorial Staff of Popular Science Monthly, 1945. From vintage issues of Popular Science Magazine comes this re-print of well-illustrated electronics articles. Topics include phonographs and shortwave radios, cabinet design and radio servicing. Each article has sharp photographs, schematics, and parts lists. 192 pages, 1.0 lb.

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This reprint of a 1935 RCA publication shows tube complement, chassis layout and date of manufacture for thousands of radios produced by over 100 different manufacturers. It also contains a tube data chart and base diagrams for RCA receiving tubes. It is very useful for identifying unknown model numbers or determining which tubes belong in a set. 256 pages, 0.9 lb.

B-624**\$9.95****Radios that Work for Free**

RADIOS THAT WORK FOR FREE. By K.E. Edwards. An experimenter's handbook on crystal radios, this book includes instructions and theory for building many different crystal radio circuits. 140 pages, 0.5 lb.

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High quality reprint of early (1920's) Montgomery Ward catalog of "wireless" equipment. 32 pages of radios, kits, tubes and books as available 70 years ago. Sorry, you can't order from this catalog! 0.2 lbs.

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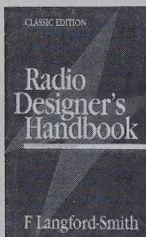
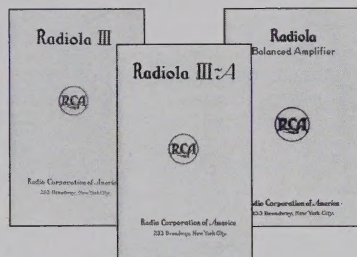
RCA RADIOLAS, RADIOTRONS, AND ACCESSORIES. A reprint of 1925 RCA promotional literature. 20 pages of pictures and information on models 30, Super VIII, 28, 26, 25, 20, III, and IIIA receivers and loudspeakers #100, 102, 104 and UZ-1325. 20 pages, 0.2 lb.

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RADIOLA INSTRUCTION

MANUALS. Reprints of the RCA instruction manuals, covering installation and operation of the Radiola III series units. 0.2 lb. each.

Radiola III **B-321 \$4.50**
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Radiola Balanced Amp **B-345 \$5.00**



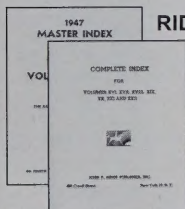
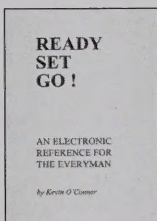
RADIOTRON DESIGNER'S HANDBOOK, Fourth Edition. By F. Langford Smith (reprint). A full reprint from page 1 to 1498 of F. Langford Smith's bible for design of vacuum tube circuits. If you're looking for the original as a collectable, this is not for you, but if you're looking for the data inside, here it is. Hard cover. 1498 pages, 3.5 lbs.

B-795 \$69.95

READY SET GO! An Electronics Reference for the Everyman.

By Kevin O'Connor. A handy reference for the novice electronic tinkerer and experienced craftsman alike. Informative and easy to read, the book explains: how to read schematic symbols; explains standard notation, S.I. symbols and tolerances; reveals the resistor color code; lists standard resistor values for 1%, 5%, 10% and 20% components; lists standard capacitor values and explains the color coding of vintage caps; explains current, voltage, power, resistance, capacitance and inductance; explains Ohm's Law and how to figure out series/parallel resistance. Transformers and impedance are clearly explained. Examples are worked out throughout the book to illustrate how truly simple basic electronics is! 2 lbs., spiral bound, 84 pages.

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RIDER 1947 MASTER INDEX TO PERPETUAL TROUBLESHOOTER MANUALS. Covers volumes I thru XV. High quality photocopy. 205 pages, 1.1 lbs. **B-331 \$21.95**

RIDER COMPLETE INDEX TO PERPETUAL TROUBLE SHOOTER MANUALS. Covers volumes XVI through XXII. 48 pages, 0.5 lb. **B-347 \$8.95**

SECRETS OF HOMEBUILT REGENERATIVE RECEIVERS.

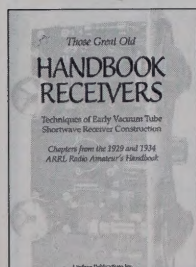
By C.F. "Rock" Rockey. Discover the secrets of building regenerative shortwave receivers. These incredibly simple radios will amaze you with their unbelievable ability to pull in signals from every country on earth. All the secrets are here! 127 pages, 0.8 lb.

B-742 \$9.95



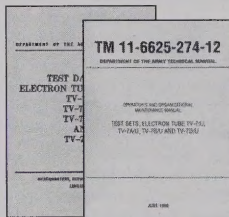
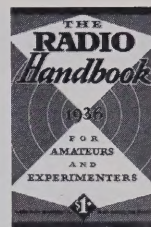
THOSE GREAT OLD HANDBOOK RECEIVERS. Chapters from the 1929 and 1934 ARRL Radio Amateurs Handbook. Chapters deal with detailed receiver theory, construction techniques and power supply secrets from the 1929 and 1934 editions of the ARRL Handbook. If you enjoy electronics, amateur radio, collecting, or just the history of technology, you'll get interesting insight into the beginnings of a technology so common today we almost take it for granted. 158 pages, 0.8 lb.

B-741 \$8.95



THE RADIO HANDBOOK-1936, For Amateurs And Experiments. Another terrific reprint from LINDSAY PRODUCTIONS, This is Frank C. Jones' 1936 Radio Handbook with more project information than the 1936 ARRL Handbook. Contains schematics, diagrams, tube data, transmitter construction articles, antennas, power supplies, receiver design, etc. If you're a builder, this is for you! 1.5 lb, 360 pages.

B-843 \$19.95



TEST DATA FOR TV-7/U TUBE TESTER. High quality reprint of the test set-up manual for the military TV-7/U, TV-7A/U, TV-7B/U, and TV-7D/U versions of Hickok tube testers, normally supplied in the lid of the tester. Also contains operating instructions, conversion table for Army VT numbers, and data table for CV type tubes. 83 pages, 0.4 lb.

B-546 \$6.95

OPERATORS AND ORGANIZATIONAL MAINTENANCE MANUAL FOR TV-7/U, TV-7A/U, TV-7B/U AND TV-TD/U TUBE TESTERS.

Reprint includes introduction and general description of tester, operating instructions, maintenance instructions and even instructions for demolition to prevent enemy use! Spiral bound. 44 pages, 0.3 lbs.

B-675 \$10.95

NEW! TUBE TESTERS AND CLASSIC ELECTRONIC GEAR. By Alan Douglas. Provides an overview of pre-1970 (the vacuum tube era) radio test equipment. It begins with an extensive discussion of tube testing and use of testers, and progresses into curve tracing. The different types of testers are compared; emission, dynamic and mutual conductance, and testers from 23 different manufacturers are tabulated and pictured. Also covers VOMs, VTVMs, Q Meters, Grid Dip Meters, Capacitance and Inductance Bridges, Signal Generators, Signal Tracers and Oscilloscopes. It includes brief company histories of the manufacturers. Useful for radio collectors, vacuum tube enthusiasts and historians. Over 300 photos and illustrations. 172 pages, 1.3 lbs.

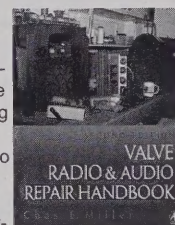
B-853 \$25.95



VALVE RADIO & AUDIO REPAIR HANDBOOK, 2nd Edition.

By Chas E. Miller. This book is not only an essential read for every professional working with antique radio and gramophone equipment, but also dealers, collectors and enthusiasts the world over. The emphasis is firmly on the practicalities of repairing and restoring, so technical content is kept to a minimum and always explained in a way that can be followed by readers with no background in electronics. Those who have a good grounding in electronics, but wish to learn more about the practical aspects, will benefit from the emphasis given to hands-on repair work, covering mechanical as well as electrical aspects of servicing. Repair techniques are also illustrated throughout. A large reference section provides a range of information culled from many information sources, and also includes specialist dealers for valves, components and complete receivers. 270 pages, 1.4 lbs.

B-839 \$37.95



THE WEEKEND REFINISHER. By Bruce Johnson. Easy-to-follow guide teaches the basics of wood repair and finish restoration. Learn how to repair scratches, veneer chips, fill small holes, raise dents, remove water damage, identify and revive various finishes and more. 295 pages, 1.0 lb.

B-645 \$14.00

ZENITH RADIO BROCHURE BOOK. Compiled by A. Jespersen & M. Emery. A nearly complete compilation of Zenith radio information from 1920 to 1946, photocopied from original sales brochures and other advertising. Includes 40 years of Transoceanic multi-band receivers. Hundreds of radios pictured. Over 50 pages, 11" x 17" spiral bound. 0.8 lb.

B-610 \$24.95



ZENITH RADIO SERVICE MANUAL AND PARTS LIST. Re-print of early Zenith service manual. Includes schematics and parts lists for Zenith radios made from 1928 through 1939. Offers help with alignment procedures, antenna alignment, and gives parts lists along with tube layouts on most models. 510 pages, 2.6 lbs.

B-755 \$21.95



GLASSWARE

AUDIO DESIGN SOFTWARE

NEW!**GlassWare Tube Manual.**

Leave DOS and the black screen and cryptic keyboard entries behind. A true 32-bit Windows program (95/98/NT), GlassWare Tube Manual is both user friendly and powerful. It's all here: plate curves, mu, rp, Gm, Vh, Ih, base and outline schematics, and essential characteristics.

Powerful search and filtering tools give control over this tube manual's large library of tubes. Look up your favorite tubes (6SN7, KT88, 2A3, and 6922) and discover other great tubes you didn't know existed. With the aid of easy-to-use editing tools, tubes can be added or subtracted to the database. Keep track of your own tube collection with GlassWare Tube Manual's personal tube database. Like all GlassWare programs, GlassWare Tube Manual allows you to print the results. Hard copies of all the tubes in this tube manual are a button click away. And tube substitutions are given for over 2000 tube types. CD-ROM. **B-CD055 \$39.95**

Tube CAD. The tube voltage amplifier design program for Windows 3.1/95/98/NT. This program covers 13 core tube circuit topologies, each divided into four variations. Thus, Tube CAD covers 52 tube circuits in all. All the popular circuits are here: SRPP, cascode, cathode follower, push-pull, split load phase splitter... Circuit variables (such as tube type, B+ voltage, plate and cathode resistor values) are entered in field boxes and the AC and DC results are then displayed. Tube CAD includes data for 32 triode tube types. Plus define characteristics for any triode not included in the library. Display and print the curves of tube types included with the program. Includes 40+ page user manual. Includes user manual. 3.5" diskette. **B-CD028 \$39.95**

SE Amp CAD. SE Amp CAD is a Windows program that helps you design, understand and modify single-ended amplifier output stages—a virtual workbench for single-ended output stage design. True Curves™ is the name of the new mathematical model used in SE Amp CAD. True Curves™ knows how a 300B or an 845 really bends: how the plate current varies with changes in grid to cathode voltage versus changes in plate voltages. With the True Curves™ tube model in SE Amp CAD you can quickly and easily model, evaluate, and understand a tube single-ended output stage. SE Amp CAD holds 30 tube models (triode and triode-connect pentodes) and over 100 output transformer profiles. The output data results, the output circuit schematic, the tube's plate curves (grid voltage, plate voltage, plate current, rp, mu, Gm), the input signal and the resulting output signal—all are displayed interactively by SE Amp CAD. 3.5" diskette. **B-CD031 \$39.95**

TUBECAD & SE AMP CAD PACKAGE **B-CD032 \$75.00**

Audio Gadgets. Put away your scientific calculator and text books: Audio Gadgets is a program for Windows 3.1/95/98/NT that helps you design of a step attenuator up to high voltage power supply. Easy to use, yet powerful. Audio Gadgets is really ten programs in one: stepped attenuator design, op-amp circuit design, power supply design, filter design, adj. regulator design, resistor calculator, speaker design, RIAA equalization, tube circuit design and more. Print previews and report printing add to the program's usefulness. Includes 40+ page user manual which is informative just by itself. 3.5" diskette. **B-CD027 \$39.95**

COLLECTION EXPLORER



Now you can know exactly what's in your basement! Designed for Windows 95/98/NT, **Collection Explorer** helps organize and track your radio collection. You can group your collection into categories, and customize the way item information is stored and viewed.

Collection Explorer is designed to look and operate like Microsoft's Windows Explorer. This makes it easy to use, since many people are already familiar with the Windows Explorer.

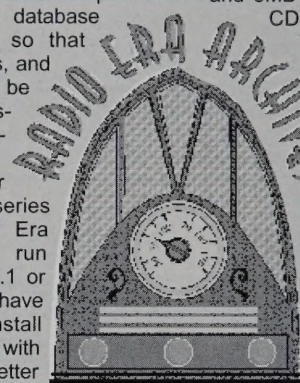
The program comes pre-loaded with many categories for radios, parts, tubes, etc, and you can add your own. Items can be imported from other programs, and a variety of reports can be printed.

Collection Explorer lists your categories in a "tree". Categories can contain subcategories, and so on. You can drag-and-drop items and categories to arrange your collection as you see fit.

You can also create custom columns to hold information about the items in your collection, such as each item's name, the quantity in your collection, its value, etc. You specify the name of the column, the type of data it will hold (such as "Date" or "Currency") and the maximum number of characters the column will hold. Each item can also have an attached photo and memo.

Collection Explorer's default categories are geared toward radio collecting, but it can be used to track any type of collection you may have. Comes on 3 1/2" disks. **B-CD033 \$39.00**

Radio Era Archives developed the and 8MB of RAM memory (and RadioView digital database CD ROM) is required. software system so that These are the only his- schematics, books, and torical and trou- magazines could be bleshooting related searched for, dis- products on the played on the com- market with a full puter screen and database search engine. printed. We offer User can print 1 page, three separate series a range of pages or an from Radio Era entire publication. Archives. They run User is restricted by under Windows 3.1 or License Agreement and Windows 95 and have Copyright to use program. A PC with product for personal VGA monitor or better use only.



NEW TITLES!

COLLINS RADIO TECHNICAL CD-ROM SERIES - 4 CD-ROMs containing ALL the COLLINS manuals for amateur communications from 1946 to 1980. Vol.1 contains receivers, Vol.2 contains Transmitters and Amplifiers, Vol.3 contains Transceivers, and Vol.4 contains all accessories, VFO's, Filters, Speakers, etc., etc. For Collins restorers and collectors, these are a MUST! **Each volume is sold separately.**

B-CD051 Volume 1 \$79.00

B-CD053 Volume 3 \$79.00

B-CD052 Volume 2 \$79.00

B-CD054 Volume 4 \$79.00

MILITARY - R-390/R-390A/URR CD-ROM This CD is a unique CD-ROM designed to provide technical and historical information on the R390/R-390A communications receivers. Called the most advanced receiver of all time, the venerable R390 series has seen 3 wars and is still in use in installations throughout the world. This CD-ROM contains both the US Navy and US Army technical manuals. Additionally we have included historical information, resource data, and facts about the R-390A. The famous Fort Devens visual alignment manuals are included. This CD does not use Radio View software but uses your internet browser HTML software for the main program and the technical manuals are all Windows based. Requires Windows 95 or Windows NT running on a personal computer.

B-CD040 \$57.00

RCA HB-3 TUBE HANDBOOK The most complete tube manual ever produced. 10 volumes of every kind of tube imaginable with almost 7,000 pages of detailed information not available elsewhere! Consists of Cathode Ray Tubes, Monoscope Tubes, Thyratons, Ignitrons, Glow-Discharge Tubes, Receiving Tubes-Industrial Types, Receiving Tubes Regular Types, Semiconductor Devices, Miscellaneous Tube Types (ie, Klystron, others), and Transmitting Tubes. All on a single CD-ROM designed to be easy to use. Requires Windows 95 or Windows NT running on a personal computer. If you had this 10 volume manual printed at 5 cents a page, it would cost over \$325 just for copying. This is the reference that you have been waiting for - the most comprehensive, most detailed technical manual ever produced for Tubes - brought to you by Radio Era Archives.

B-CD041 \$80.00

ZENITH TRANS-OCEANIC CD-ROM - This one for Trans-Oceanic radio lovers. It has EVERY service schematic and alignment information for every Zenith Trans-Oceanic made. It has servicing tips and restoration information as well as a library of pictures of the various Zenith Trans-Oceanic radios. In addition to the Trans-Oceanic schematics, it also has manuals, log sheets, advertising and more. Requires a PC running Windows 95 or later and an Internet browser such as Microsoft Internet Explorer. This is a great CD-ROM and a real bargain based on limited availability of many of the models service information.

B-CD042 \$89.00

VT DATA

For IBM PC and compatibles, this package is a Tube Manual on your computer. It has the information expected in a tube manual, plus several new, powerful features. You can look up specs and pin outs, search for tubes that meet your specs, and find substitutes. VTDATA also provides features for maintaining your personal tube inventory.

Intended for designers, repairmen, and collectors, VTDATA's database contains electrical specs for over 1200 of the most commonly found tubes, including tubes of historical interest, such as the early "two digit" types and hi-fi audio types. DOS 4.01 or higher, or Windows required. 3.5" disk.

B-CD029 \$29.00

RADIO REPAIR SERIES

ANTIQUE RADIO REPAIR - Vol. 1 - A single CD with the most sought after information required for the repair and restoration of antique radios & phonographs! Contains troubleshooting information, radio theory, technical reference and much more on a single CD. If you are new to antique radio, this should be a MUST purchase to enable you to find your way into this fabulous hobby or avocation!

B-CD010 \$85.00

Theory:

- Radio Theory and Operating by Mary Texanna Loomis - 848 pages - very famous author of radio circuit design.
- Understanding Radio by National Radio Institute - 345 pages in 12 books covering all aspects of radio repair.

Technical Reference:

- GE Receiving Tube Manual - 302 pages of invaluable tube reference data and information.
- Tube Substitution Manual - 111 pages of tube substitution information.
- Bernards Tube Substitution Manual - 44 pages of English/European tube substitution data.
- Cunningham Reference Manual 1927, 214 pages of radio tube/radio cross reference data.
- Reading Radio Diagrams by American Technical Society - 1927 - 114 page book on how to read radio schematics.

Radio Repair:

- Profitable Radio Repairing - Marcus, 1956, 330 page book on how to effectively repair radios in a minimum of time.
- How It Works - Rider, special publication by John F. Rider from the Perpetual Trouble Shooters Manuals, volumes 8-11, 15-17 and the P.A. Manual. 504 pages of highly descriptive information on radio circuits and the analysis thereof.

NEW!

ANTIQUE RADIO REPAIR - Vol. 2 - RIDER MANIA! John Rider was one of the most prolific electronic publishers of his time. His world famous Perpetual Troubleshooters Manual ensured that fame. However, Rider published many other "MUST" books. This CD is a compendium of John Rider technical series publications about antique radio, how the circuits work, etc. A must for every library or person wanting to learn better how to repair old radios and the theory behind the repairs. Contains almost 3,000 pages of pertinent technical and helpful information. Runs on a PC running Windows 95 or later and an internet browser program such as Internet Explorer or Netscape.

B-CD011 \$85.00

RIDER MANUALS SERIES

PERPETUAL TROUBLESHOOTERS MANUAL V1-23 - The World Famous Perpetual Troubleshooters Manual by John F. Rider is considered to be the "Bible" for persons involved in the repair and restoration of old radios. This terrific set was published in 23 Volumes containing over 35,000 schematics. They have been recreated on 6 separate CD volumes (each stand alone). Check this out if you want the worlds greatest resource for old radio schematics! Over 35,000 schematics covering over 100,000 radio models are contained in this series.

EACH \$85.00

Rider's Vol. 1-4 (1926-34) **B-CD020** Rider's Vol. 13-16 (1941-47) **B-CD023**
Rider's Vol. 5-8 (1934-37) **B-CD021** Rider's Vol. 17-20 (1947-50) **B-CD024**
Rider's Vol. 9-12 (1937-41) **B-CD022** Rider's Vol. 21-23 (1950-53) **B-CD025**

NEW!

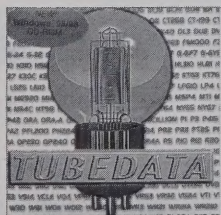
COMPLETE RIDER'S INDEX - Due to constant requests, Radio Era Archives has taken all the indexing from their Rider's 6-CD series and have made it available on CD-Rom. This CD requires using an HTML browser software and either the ability to read a PC text or PC Excel spreadsheet file. Every radio in this series is alphanumerically listed with the starting and ending ".tif" graphics numbers indication starting page and ending page number for specific schematics. This could be of help to those who want a complete accurate index. The Excel file is preferable due to multiple column spacing and lining up the columns for easy reading.

B-CD019 \$34.00

NEW!

TUBE DATA FOR WINDOWS 95/98

Now available in a Windows CD-ROM version, this is the same information from Tube Data offered in our 2000 catalog (page 69). Tube Data covers over 27,000 tube types from the United States, Canada, Great Britain, Holland, Germany, Russia and other countries. This is an ideal aid for tube collectors, circuit designers, historians and anyone making tube substitutions in vacuum tube equipment. CD-ROM for IBM compatible computers.



B-CD034 \$39.95

RADIOPHILE SERIES

RADIOPHILE VOLUME 1 - A unique CD-Rom reference that won't deteriorate with age! 29 Books, 4,200 + pages on a single CD! A collection of difficult, if not impossible to find, old radio books containing radio troubleshooting information, radio reference data and general interest information about the age of radio. This antique radio reference is something that all lovers of old radios should have!

B-CD001 \$85.00

Radio Troubleshooting

- John F. Rider - Radio Troubleshooting by the Resistance method, 932, 209 pages
- John F. Rider - Radio Troubleshooting Guide - Vol. 1, 1954, 156 pages
- John F. Rider - Basic Electronics - Vol. 5, Troubleshooting Radio Receivers, 1955, 111 pages
- Dr. A. Ghirardi's - Most Radio Receiver Problems, 1947, 702 pages
- Philco Service Division - Philco Radio Servicing and Alignment, no date, 35 pages
- Atwater-Kent, Servicing Data, 1928, 98 pages
- Atwater-Kent, Electrical Data, 1932, 24 pages
- Atwater-Kent, Parts Data, 1928, 64 pages
- National Radio Institute - a complete series of "How To" books on theory, troubleshooting and servicing, 1927-1937, 12 books, 375 pages

Reference

- John F. Rider, Perpetual Troubleshooters Manual Index - Vol. 1-15, 1947, 206 pages
- John F. Rider, Perpetual Troubleshooters Manual Index - Vol. 16-22, 1951, 47 pages
- John F. Rider, Perpetual Troubleshooters Manual Index - Vol. 23, 1954, 71 pages, includes parts lists and cross-references
- General Electric, Receiving Tube Reference Manual, 1962, 302 pages
- ARRL Handbook, Amateur Radio Handbook, 1955, 764 pages
- RCA - Cunningham "Radiotron Tube Reference Book", 1933, 161 pages

Old Radio Information

- Hugo Gernsback, Radiocraft Magazine - Jubilee Issue, March 1938, 146 pages
- Radio Trade Journal, 1925, 194 pages
- Hugo Gernsback, Quiz Book & Kinks - Shortwave Radio, 1938, 65 pages

RADIOPHILE VOLUME 2 - A terrific radio reference! The fabulous Hugo Gernsback's Official Radio Service Manuals - a wealth of information in 6 rare, hard to find volumes! The complete Zenith Serviceman's schematics with parts listing! Radio data, troubleshooting tips, reference information, Old radio schematics in an easy to use electronic reference containing over 5,600 pages on a single CD!

B-CD002 \$85.00

Radio Troubleshooting:

- Hugo Gernsback - Official Radio Service Manual - 1931, 610 pages
- Hugo Gernsback - Official Radio Service Manual - 1932, 988 pages
- Hugo Gernsback - Official Radio Service Manual - 1933, 703 pages
- Hugo Gernsback - Official Radio Service Manual - 1934, 397 pages
- Hugo Gernsback - Official Radio Service Manual - 1935, 1,009 pages
- Hugo Gernsback - Official Radio Service Manual - 1936, 1,200 pages
- Zenith Radio - Official Serviceman's Guide - Vol. 1, 1,004 pages
- Zenith Radio - Official Serviceman's Guide - Vol. 2, 1,004 pages
- Zenith Radio - Official Serviceman's Guide - Parts Listing, 182 pages

The Zenith Series has every schematic for every radio manufactured from inception of Zenith until 1942. The Gernsback Series contains information not contained elsewhere including a great deal of radio schematics not found in Riders, Bieltmans, Supreme or other schematic sources. The Gernsback Series is a rare find as an entire collection that is complete. Don't miss adding this series to your collection!

RADIOPHILE VOLUME 3 - A "Must Buy" for serious collectors or repairmen. This is a rare offering! The newest entry to the Radiophile series. One of the best kept secrets in antique radio; The Yaxley-Mallory Radio Encyclopedia and many other fabulous old radio books that should be a must for any collector's library. Radio history in layman's language, solid technical radio theory, world famous circuit design handbook and much, much more available in this CD-Rom offering. Thousands of pages of hard to find, if not impossible to find radio information in an easy to use database driven CD-Rom publication!

B-CD003 \$85.00

- The Yaxley-Mallory Radio Encyclopedia - This is one of the most hard-to-get, and most obscure books in the radio business. Originally started in 1937 with the first printing, we now bring you the 6th edition published in 1948 and contains radio listings of radios from the beginning of radio to 1948! If you've never heard of the Yaxley-Mallory Radio Encyclopedia, it does not surprise us as almost no one has heard of this book. BUT THIS BOOK IS PROBABLY ONE OF THE MOST IMPORTANT BOOKS AVAILABLE TO THE RADIO COLLECTOR / REPAIRMAN / RESTORER, as it contains information in a way that is not available in any other form. If you've ever had a radio that has no name, no model number, no chassis number and you've wanted to repair it or identify it, THIS IS THE BOOK FOR YOU!
- Radio for Everybody - by Austin Lescarboura of John Rider and Scientific American fame. 1922 edition of a layman's non-technical book of radio, what it does, how it works, etc. The perfect book for the non-technical radio buff in easy to understand form. Very rare radio book with 334 pages, many illustrated, of historical radio information.
- The Radio Manual - by George Sterling. 1940 technical manuals encompassing 1,120 pages covering all aspects of the radio art and radio theory. A great technical reference manual or for detailed study of specific elements of radio.
- RCA Radiotron Designers Handbook - 3rd Edition - 1945 "Bible" of radio books. This hard to find book is one of the more famous books containing circuit analysis and theory of radio, yet in an easy to understand format. One of the most sought after books with valuable data for radio collectors and persons repairing/restoring old radios. Over 352 pages.
- Tube Substitution Handbook - 111 pages of cross-references of tube substitution information.
- Bernard's English Valve Substitution Manual - 44 pages of English/European tube cross reference data.
- Cunningham 1927 Tube to Radio Cross-Reference - 214 page book containing tube data for older radios. Very useful in classifying the model and make of a radio by tube layout information.

RECEIVING - TRANSMITTING - INDUSTRIAL

ORDERING TUBES - THE INS AND OUTS

We have over 3000 tube types which are new and stocked for immediate shipment. We stock both new old stock (NOS) and currently manufactured tubes. If you do not find your tube type listed, please contact us. Many types have equivalent numbers which we can cross reference. Tube types starting with letters follow the numerical listing.

Also available are many used tubes in types that have become scarce or expensive. Tube types normally stocked used, as well as new, are listed on page 11. All used tubes have been tested by us and are guaranteed to meet or exceed the minimum industry standards for used tubes. All have been boxed by us in clean white boxes.

Many tube types are available in different envelope styles and are equivalent electrically. For example, 6A8 is metal, 6A8G is ST shaped large glass and 6A8GT is tubular shaped small glass. See the illustration below for tube styles.

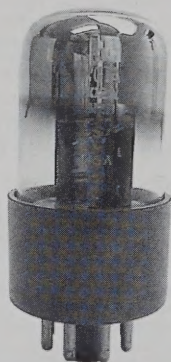
PRICES SHOWN ARE FOR CURRENT STOCK AND ARE SUBJECT TO CHANGE WITHOUT NOTICE. Because most tube types are no longer manufactured, quantities available are limited. Price and availability of tubes with "CALL" under PRICE will be quoted at the time of inquiry. Tubes are designated as "CALL" tubes when there is a low supply or when there are large fluctuations in the market price. Written quotes are good for 15 days. Special quantity pricing is available on some types. Used tube prices are generally about 50% - 60% of the new tube price. We also have some "Down n' Dirty" tubes at low prices for the experimenter. Call for price and availability.



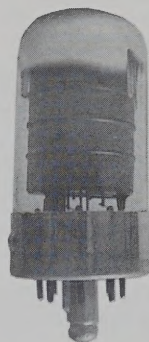
S SHAPE
(Balloon, Globe)



ST SHAPE
(Shoulder)



GT SHAPE
(Tubular)



LOCTAL



METAL



MINIATURE

MATCHING & SPECIAL SELECTION

Most output tubes can be supplied in matched multiples at a charge of \$2.00 per tube, except for low supply, high demand tubes ("CALL" tubes). Matching on "CALL" tubes varies and will be quoted at time of inquiry. We match transconductance and cathode current.

Specific brand, construction, or testing can be supplied for an additional \$1.00 per tube.

OUR GUARANTEE

All new tubes (except horizontal amplifier tubes, also known as "linear or sweep tubes") are guaranteed to meet manufacturers specifications for 90 days, except for breakage or when damaged by operation outside manufacturers' specified ratings.

All used tubes are guaranteed to meet minimum industry standards for used tubes and are guaranteed for 30 days. The same exceptions and conditions as noted above for new tubes apply to used tubes.

Linear/sweep tubes are guaranteed for 10 days, except for breakage or when damaged by operation outside manufacturers' specified ratings. See page 1 for a list of linear/sweep tubes.

WESTERN ELECTRIC TUBES

We can supply some original Western Electric tubes. Please contact us for availability and pricing.

THE INFORMATION ON TUBES IN THIS CATALOG IS FOR SALES INFORMATION ONLY. IF YOU ARE INTERESTED IN SELLING TUBES TO US, PLEASE CALL OR FAX US TO REQUEST A CURRENT BID LIST.

TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE
WHAT'S A "CALL" TUBE?									
Tubes with "Call" instead of a price are tube types that were in low supply at the time this catalog was published, or types which we have a difficult time keeping in stock in general.									
You can check our website www.tubesandmore.com for current availability and pricing for these tube types.									
01A (ST)	Call	1C1 (ballast)	11.40	1S6	Call	2E30	8.10	3BT2/3BS2B	6.40
0A2	4.00	1C5GT	3.10	1SA6GT	Call	2E31	5.50	3BU8/3GS8	2.90
0A2WA	See 6626	1C6	3.30	1SB6GT	4.70	2E32	6.60	3BW2	See 3BT2
0A3/VR75	5.40	1C7G	3.20	1SX2	7.20	2E35/502AX	Call	3BY6	2.90
0A4G	19.50	1C21	20.50	1T2/U37	8.80	2E36	Call	3BZ6	3.60
0A5	8.60	1D5GP	Call	1T4/DF91	3.20	2E42	6.60	3C2	Call
0B2	5.10	1D7G	3.60	1T5GT	2.90	2EA5/2EV5	2.90	3C4/3E5/DL96	5.00
0B2WA	See 6627	1D8GT	2.90	1T6	Call	2EG4	8.90	3C6/XXB	2.90
0B3/VR90	2.90	1D21	28.60	1U4	4.70	2EN5	2.90	3C23	Call
0C2	6.60	1DG3A	6.30	1U5	5.50	2ER5	2.90	3C24/24G	Call
0C3-A/VR105	4.60	1DK1	3.60	1U6	Call	2EV5	See 2EA5	3C31	Call
0D3-A/VR150	4.30	1DK27	2.90	1V/6Z3	5.00	2FH5	2.90	3C45/6130	65.50
0E3/85A1	7.10	1DK29	2.90	1V2	3.10	2FQ5A/2GK5	4.80	3CA3	3.30
0G3/85A2	3.30	1DN5	3.00	1V5	Call	2FS5	4.00	3CB6/3CF6	2.90
0Y4	4.80	1E4G	7.60	1V6	3.90	2FY5	3.30	3CE5	See 3BC5
0Z4-A	3.20	1E5GP	2.90	1W4	11.00	2G21	Call	3CF6	See 3CB6
1A1(ballast)	11.40	1E7G	3.70	1W5	4.80	2G22	15.20	3CN3B	4.30
1A3	2.90	1E7GT	4.40	1X2-B-C	See 1BX2	2GK5	See 2FQ5A	3CS6	2.90
1A4/1A4T	4.40	1EP1	Call	1Z1 (ballast)	11.40	2GU5	4.00	3CU3A	8.10
1A4P	3.00	1F4	Call	1Z2	7.20	2GW5	Call	3CV3A	Call
1A5GT	2.90	1F5G	3.20	2-01C	57.10	2HA5/2HM5	3.60	3CX3/3DA3	5.70
1A7GT	3.00	1F6	2.90	2A3	76.10	2HK5/2HQ5	3.30	3CY3/3DB3	3.60
1AB6/DK96	Call	1F7G	4.30	2A3 (RCA)	Call	2HM5	See 2HA5	3CY5	2.90
1AD2/1BY2A	2.90	1F34	8.40	2A3 (Sovtek single plate)	31.40	2HQ5	See 2HK5	3CZ3A	5.70
1AD4	4.00	1G3GTA	See 1B3GT	2A4G	5.00	2K25	Call	3D6/1299	3.30
1AD5	5.00	1G4GT	10.50	2A5	16.90	2K28/707B	25.50	3D21A	Call
1AE4	4.60	1G5G	4.60	2A6	5.40	2K41	11.50	3D21B	38.20
1AF4/1AJ4	4.20	1G6G	4.90	2A7	7.10	2T4	2.90	3D21WA/B	38.20
1AF5/1AH5	3.60	1G6GT-G	3.30	2A7-S	Call	2V2	Call	3DA3	See 3CX3
1AG4	5.00	1H2	2.90	2A12 (ballast)	11.40	2V3G	3.00	3DB3	See 3CY3
1AG5	Call	1H4G	Call	2AC15	Call	2W3	Call	3DC3	8.60
1AH4	3.60	1H5GT-G	3.20	2AF4	2.90	2W3GT	Call	3DF3-A	6.00
1AH5	See 1AF5	1H6G	2.90	2AH2	4.80	2X2A/2Y2/879	2.90	3DG4	5.70
1AJ4	See 1AF4	1H46 (ballast)	11.40	2AS2-A	4.60	2Y2	See 2X2A	3DH3	4.70
1AJ5	3.30	1J3/1K3A	5.50	2AS15A	24.80	3-2 (ballast)	11.40	3DHH12	2.90
1AK4	Call	1J5G	Call	2AV2/2BA2	4.10	3-4 (ballast)	11.40	3DHH13	3.00
1AK5	3.30	1J6G	8.80	2AZ2	2.90	3-14 (ballast)	11.40	3DJ3	See 3CY3
1AN5/DF97	3.40	1K3A	See 1J3	2B3	6.60	3-16 (ballast)	11.40	3DK6	2.90
1AU2	2.90	1L4/DF92	2.90	2B4	7.20	3-38A (ballast)	11.40	3DR3	11.90
1AU3/1N2A	2.90	1L6	33.00	2B7	4.20	3-200A3/592	Call	3DS3	10.80
1AX2	2.90	1LA4	4.30	2BA2	See 2AV2	3-500ZG (China)	131.30	3DT6A	2.90
1AY2	7.90	1LA6	5.90	2BJ2	4.80	3A2	2.90	3DZ4	See 3AF4A
1B3GT/1G3GTA	4.30	1LB4	6.30	2BN4A	2.90	3A3-A-C/3AW3	4.60	3E5	See 3C4
1B4	See 1B4-T/951	1LC5	2.90	2BU2	6.30	3A4	4.30	3E6	3.30
1B4T/951	6.00	1LC6	3.20	2C21/1642	6.10	3A5/DCC90	3.60	3E29	See 829B
1B5	4.70	1LD5	3.90	2C22/7193	7.60	3A8GT	Call	3EA5	3.90
1B7GT	2.90	1LE3/1LF3	4.40	2C26	4.80	3AF4A/3DZ4	2.90	3EH7/XF183	2.90
1B23	19.10	1LF3	See 1LE3	2C33/RX233A	11.50	3AL5	2.90	3EJ7/XF184	Call
1B24	11.90	1LG5	3.40	2C36	38.20	3AT2B	5.10	3ER5/YC95	3.00
1B32/532A	11.90	1LH4	3.00	2C39A	See 7289	3AU6	2.90	3FH5	3.90
1B35A/6038	35.70	1LN5	4.40	2C39B/6897	See 7289	3AV6	2.90	3FG5/3GK5	4.90
1B40	17.90	1M3/DM70	6.00	2C40-A	42.90	3AW2A	4.00	3FS5	3.60
1B59/R1130B	25.70	1M5G	2.90	2C43/464A	28.00	3AW3	See 3A3-A	3GK5	See 3FQ5
1BC2A	4.90	1N2A	See 1AU3	2C44/464	20.50	3B2	4.60	3GS8	See 3BU8
1BG2/DY51	2.90	1N3/DM71	6.10	2C46	28.60	3B4/DL98	2.90	3GW5	2.90
1BH2A	2.90	1N5GT/1P5GT	4.60	2C51	See 396A	3B5GT	2.90	3HA5/3HM5	4.10
1BK2/1RK41	2.90	1N6G	Call	2C51W	See 5670	3B22/EL1C	Call	3HK5	See 3HA5
1BQ2/DY802	3.00	1P5GT	See 1N5GT	2C52	Call	3B24	15.20	3HM5	See 3HA5
1BX2/1X2-B-C	2.90	1P21	Call	2C53	Call	3B25	21.90	3HQ5	5.60
1BY2A	See 1AD2	1P28	Call	2CN3A-B	2.90	3B26	14.30	3HS8	4.10
		1P29	Call	2CW4/2DS4	4.90	3B28	34.50	3JC6A	5.90
		1P39	Call	2CY5	2.90	3B29	35.70	3KT6	3.90
		1P40	17.20	2D21/PL21	3.20	3BA6	2.90	3LF4	3.00
		1P41/924	19.10	2DS4	See 2CW4	3BC5/3CE5	2.90	3MP26	8.60
		1Q5GT	2.90	2DV4	9.20	3BE6	2.90	3Q4	5.10
		1Q6	Call	2DZ4	2.90	3BF2	4.30	3Q5GT	3.30
		1R4/1294	2.90	2E5	Call	3BL2A	5.40	3S4/DL92	2.90
		1R5/DK91	6.00	2E22	40.20	3BM2	2.90	3T4 (ballast)	11.40
		1RK41	See 1BK2	2E24	6.90	3BN2A	2.90	3TF4A	9.60
		1S2-A/DY87	3.00	2E25	Call	3BN4A	2.90	3TF7	Call
		1S4	2.90	2E26	6.10	3BN6	3.90	3TFV4 (ballast)	11.40
		1S5/DAF91	2.90	2E29	See 2E27	3BS2B	See 3BT2	3V4/DL94	7.20

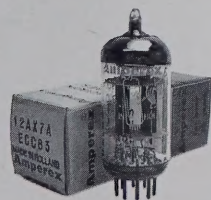
TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE
4-65A/8165	82.70	4X150A/7034	52.40	5U4WG	See 5931	6AL3/EY88	6.40	6BC4	7.20
4-125A/4D21	137.60	4X150D/7035	Call	5U8	4.30	6AL5/6EB5	3.00	6BC5/6CE5	3.40
4-250A/5D22	219.50	4X150G	Call	5U9/LCF201	4.00	6AL5W	See 5726	6BC7	3.30
4-400C/6775	Call	5AM8	3.60	5V3A	See 5AU4	6AL7GT	4.20	6BC8/6BZ8	5.00
4AU6/4BA6	3.30	5AN8	2.90	5V4G	Call	6AL11	5.60	6BD4-A	Call
4AV6	3.00	5AQ5	5.40	5V4GA	10.30	6AM4	3.00	6BD5GT	3.40
4B31	71.40	5AR4/GZ34 (US/European)	Call	5V6GT	2.90	6AM5/EL91	11.70	6BD6	2.90
4BA6	Call	5AR4 (China)	10.50	5W4	4.40	6AM6/EF91	4.80	6BD7	4.20
4BC5/4CE5	2.90	5AS4	See 5U4G	5W4GT	4.20	6AM8A	6.60	6BD7A/EBC81	6.60
4BC8/4RHH2	2.90	5AS4A/5U4GB	13.20	5X3	21.40	6AN4	4.40	6BD11	4.40
4BE6	2.90	5AS8	2.90	5X4G	Call	6AN5	4.40	6BE3/6BZ3	Call
4BL8/XCF80	2.90	5AT8	2.90	5X8	2.90	6AN5WA	4.40	6BE6/EK90	3.90
4BN6	2.90	5AU4/5V3A	4.00	5Y3G	Call	6AN6	3.00	6BE6W	See 5750
4BQ7A/4BZ7	3.00	5AV8	2.90	5Y3GT	Call	6AN7A/ECH80	8.60	6BF5	3.60
4BS8/4BZ8	3.30	5AW4	Call	5Y3GT (Sovtek)	7.90	6AN8A	6.00	6BF6/6BU6	2.90
4BU8	3.00	5AZ4	3.50	5Y3WGT	See 6106	6AQ4/EC91	12.60	6BF7	Call
4BX8	2.90	5B8	2.90	5Y3WGTB	See 6087	6AQ5A/6HG5	4.90	6BF8	3.60
4BZ6/4JH6	4.30	5BC3-A	4.60	5Y4G	Call	6AQ5W	See 6005	6BF11	7.10
4BZ7	See 4BQ7A	5BE8	3.60	5Y4GA	Call	6AQ6	2.90	6BG6G-GA	8.60
4BZ8	See 4BS8	5BK7A	2.90	5Y4GT	Call	6AQ7GT	2.90	6BH6/E90F	4.00
4CB6/4DE6	4.40	5BQ7A/5BZ7	2.90	5Z3	6.50	6AQ8/ECC85	12.60	6BH8	See 6AU8-A
4CE5	See 4BC5	5BR8	See 5CL8A	5Z4	5.60	6AR5	9.30	6BH11	5.40
4CS6	2.90	5BT8	2.90	6-1H (ballast)	11.40	6AR6	15.20	6BJ3	2.90
4CX250B/7203	127.10	5BW8	3.20	6A3	Call	6AR6WA	See 6098	6BJ5	10.70
4CX250B (Svetlana)	104.00	5BZ7	See 5BQ7A	6A4	7.30	6AR8	5.10	6BJ6/E99F	3.60
4CX250K/8245	47.70	5C21	See C6J	6A5	Call	6AR11	4.10	6BJ7	2.90
4CX250R/7580	Call	5CG8	4.20	6A5G	Call	6AS5	2.90	6BJ8	4.60
4CX300A/8167	138.60	5CL8A/5BR8	4.20	6A6	5.70	6AS6	4.10	6BK4-A-B	8.10
4CX350F/8322	140.70	5CM8	2.90	6A7	11.00	6AS6W	See 5725	6BK4C/6EL4A	17.60
4CX800A (Svetlana)	199.50	5CQ8	2.90	6A8	Call	6AS7G/6520	10.90	6BK5	2.90
4CY5	2.90	5CU4	Call	6A8G	Call	6AS7GA	7.20	6BK6	See 6AT6
4D21	See 4-125A	5CZ5	4.00	6A8GT	Call	6AS7G (Svetlana)	18.80	6BK7-A-B	5.00
4D32	71.40	5D22	See 4-250A	6AB4/EC92	4.20	6AS8	3.90	6BL4	2.90
4DE6	See 4CB6	5DH8	3.00	6AB5/6N5	Call	6AS11	Call	6BL6	193.20
4DK6	3.50	5DJ4	6.20	6AB7/1853	5.40	6AT6/6BK6	2.90	6BL7GTA	7.70
4DL4	3.90	5EA8/5GH8A	5.40	6AB8/ECL80	Call	6AT8-A	4.00	6BL8/6LN8	5.00
4DT6A	3.60	5ES8	3.70	6AC5GT	10.40	6AU4GTA	6.00	6BM6	Call
4E27	46.20	5EU8	2.90	6AC7/1852	3.90	6AU5GT	6.30	6BM8/ECL82	Call
4EH7/LF183	3.40	5EW6/5GM6	3.40	6AC7WA	See 6134	6AU6A/EF94	4.80	6BM8 (Svetlana)	12.10
4EJ7/LF184	Call	5FG7	3.00	6AC10	5.70	6AU6WA	See 6136	6BN4A	4.10
4ES8	2.90	5FV8	See 5CL8A	6AD6G/6AF6GT	15.80	6AU7-A	6.20	6BN5/EL85	4.00
4EW6/4GM6	2.90	5GH8A	See 5EA8	6AD7G	6.50	6AU8-A/6BH8	5.10	6BN6/6KS6	4.80
4GJ7/4GX7	5.10	5GJ7/LCF801	5.10	6AD8/6DC8	4.90	6AV5GA	5.90	6BN8	8.70
4GK5	3.90	5GM6	See 5EW6	6AD10	8.60	6AV5GT	4.70	6BN11	7.60
4GM6	See 4EW6	5GS7	6.00	6AE5GT	6.50	6AV6/EBC91	3.50	6BQ5/EL84	21.00
4GS7	4.80	5GX6/5HZ6	3.20	6AE6G	4.20	6AV11	Call	6BQ5/EL84 (Russia)	4.70
4GX7	See 4GJ7	5GX7	3.60	6AE7GT	Call	6AW6	See 6AU6A	6BQ5 (Sovtek)	5.20
4GZ5	3.90	5HA7	2.90	6AF3	3.20	6AW8A	4.20	6BQ5 (Tesla)	7.90
4HA5/4HM5	3.60	5HB7	2.90	6AF4A/6DZ4	4.60	6AX3	2.90	6BQ6GTB/6CU6	3.90
4HA7/4HC7	3.60	5HC7	2.90	6AF6GT	See 6AD6G	6AX4GTB	3.60	6BQ7A/6BZ7	3.30
4HC7	See 4HA7	5HG6	See 5GX6	6AF9	6.10	6AX5GT	4.70	6BR3/6RK19	2.90
4HK5	2.90	5HG8	2.90	6AF11	5.50	6AX7	7.20	6BR5/EM80	7.20
4HM5	See 4HA5	5HZ6	See 5GX6	6AG5	2.90	6AX8	4.80	6BR7	18.10
4HM6/4JC6A	4.90	5J6/5MHH3	2.90	6AG5WA	See 6186	6AY3B	4.20	6BR8A/6FV8	4.60
4HQ5	3.90	5JK6	Call	6AG6G/EL33	Call	6AY11	3.00	6BS3A	Call
4HS8/4KF8	2.90	5JL6	2.90	6AG7/6AK7	7.10	6AZ8	10.30	6BS7	Call
4HT6	3.60	5JW8	3.20	6AG9	8.50	6B3	2.90	6BS8	5.00
4JC6A	See 4HM6	5KD8	4.80	6AG11	4.80	6B4G	38.40	6BT4/EZ40	7.20
4JC6A/4JD6	5.70	5KE8	6.10	6AH4GT	3.70	6B4G (Sovtek)	26.20	6BU6	See 6BF6
4JD6	See 4JC6A	5KZ8	4.60	6AH6	3.60	6B5	19.10	6BU8/6KF8	4.00
4JH6	See 4BZ6	5LJ8	5.90	6AH6WA	See 6485	6B6G	7.20	6BV7	Call
4KE8	3.90	5MB8	5.10	6AH7GT	Call	6B7	6.10	6BV8	5.90
4KF8	See 4HS8	5MHH3	See 5J6	6AH9	6.20	6B7-S	Call	6BV11	Call
4KN8/4RHH8	Call	5MK9	Call	6AJ4	4.10	6B8	4.20	6BW3	5.50
4KT6	5.10	5R4GA	6.40	6AJ5	3.00	6B8G	3.30	6BW4	3.30
4L8	6.10	5R4GB	11.90	6AJ6	3.60	6B10	5.50	6BW6	10.70
4LU6	3.30	5R4GY-A-B	11.90	6AJ8/ECH81	6.40	6BA3	Call	6BW7	5.00
4MK8	3.90	5R4WGA-B-Y	7.20	6AK5/EF95	3.60	6BA5	5.70	6BW8	2.90
4MP12	6.60	5RDDH1	Call	6AK5W	See 5654	6BA6/EF93	4.40	6BW11	5.50
4MP26	8.60	5T4	7.00	6AK6	3.70	6BA6W	See 5749	6BX6/EF80	2.90
4PR60B/8252	Call	5T8	2.90	6AK7	See 6AG7	6BA7	8.50	6BX7GT	9.20
4RHH2	See 4BC8	5U4G/5AS4	Call	6AK8/EABC80	6.10	6BA8-A	5.40	6BY5G	Call
4RHH8	See 4KN8	5U4GB	See 5AS4A	6AK10	5.30	6BA11	5.90	6BY5GA	2.90

TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE
6BY6	4.70	6CY5	5.60	6EH5	See 6CA5	6GD7	4.80	6J4	2.90
6BY7/EF85	3.60	6CY7	3.70	6EH7/EF183	4.20	6GE5	7.50	6J5	5.00
6BY8	3.30	6CZ5	Call	6EH8	3.00	6GE8/7734	29.80	6J5GT	Call
6BY11	Call	6D2	Call	6EJ4-A	See 6EF4	6GF5	Call	6J6A/ECC91	3.30
6BZ3	See 6BE3	6D4	6.50	6EJ7/EF184	3.00	6GF7A	7.00	6J6WA	See 6101
6BZ6/6JH6	5.30	6D6	4.80	6EL4A	See 6BK4C	6GH8A	3.60	6J7/EF36	4.80
6BZ7	See 6BQ7A	6D7	Call	6EM5	5.70	6GJ5A	10	6J7G	Call
6BZ8	See 6BC8	6D8G	Call	6EM7	See 6EA7	6GJ7/ECF801	4.90	6J7GT	4.60
6C4/EC90	4.80	6D10	6.10	6EN4	12.40	6GJ8	4.70	6J8G	8.80
6C4WA	See 6100	6D22S (Svetlana)	4.20	6EQ7	3.00	6GK5	See 6FQ5A	6J9	2.90
6C5	3.40	6DA4-A/6DM4	2.90	6ER5/EC95	5.50	6GK6	7.70	6J10/6Z10	7.90
6C5G	Call	6DA5/EM81	6.30	6ES5	2.90	6GK17	5.30	6J11	4.60
6C5GT	Call	6DA6/EF89	9.30	6ES6/6FD6	3.40	6GL7	6.40	6JA5	18.40
6C6	3.90	6DB5	2.90	6ES8/ECC189	7.10	6GM5	26.30	6JA8	See 6CX8
6C7	Call	6DB6	4.80	6ET6/EF98	2.90	6GM6	5.50	6JB5	See 6HE5
6C8G	3.20	6DC6	7.30	6ET7	2.90	6GM8/ECC86	4.40	6JB6-A	26.30
6C9	11.70	6DC8	See 6AD8	6EU7	18.50	6GN8	See 6EB8	6JC5	See 6HE5
6C10	14.00	6DC8/EBF89	4.00	6EU8	2.90	6GQ7	2.90	6JC6A	5.60
6C30 (delay relay)	17.90	6DE4	See 6CQ4	6EV5	See 6EA5	6GR7	5.70	6JC8	2.90
6C60 (delay relay)	17.90	6DE6	2.90	6EV7	4.60	6GS7	4.60	6JD5	See 6HZ5
6CA4/EZ81	10.90	6DE7	5.00	6EW6	6.00	6GT5-A	19.10	6JD6	5.00
6CA5/6EH5	3.30	6DG6GT/6W6GT	3.00	6EW7	5.70	6GU5	3.60	6JE6A	47.70
6CA7/EL34 (US)	Call	6DHH12	2.90	6EX6	See 6CD6GA	6GU7	6.20	6JE6C/6LQ6	47.30
6CA7 (China)	9.00	6DHH13	2.90	6EY5/6EZ5	4.20	6GV5	6.50	6JE8	3.00
6CA7 (Tesla) See EL34 (Tesla)		6DJ8/ECC88	8.80	6EY6	4.40	6GV8/ECL85	3.60	6JF6	9.40
6CB5A	5.50	6DJ8/ECC88 (Mullard)	26.30	6EZ5	See 6EY5	6GW6	See 6DQ6A-B	6JG5	4.20
6CB6A/6CF6	3.60	6DJ8 (Down & Dirty)	2.90	6EZ8	4.10	6GW8/ECL86	7.40	6JG6A	38.30
6CD3/6CG3	6.20	6DJ8 (Tektronix PN)	3.30	6F1	Call	6GX6/6GY6	4.30	6JH5	9.90
6CD6G/6DN6	6.90	6DK3/6DL3	5.30	6F4	8.60	6GX7	4.20	6JH6	See 6BZ6
6CD6GA/6EX6	6.00	6DK6	3.60	6F5/H63	5.00	6GX8/EAM86	Call	6JH8	6.20
6CD7/EM34	Call	6DL3	See 6DK3	6F5G	17.60	6GY5	Call	6JK5	8.30
6CE3	Call	6DL4/EC88	6.30	6F5GT	Call	6GY6	See 6GX6	6JK6/6JL6	Call
6CE5	See 6BC5	6DL5/EL95	6.50	6F6	Call	6GY8	2.90	6JK8	3.20
6CF6	See 6CB6A	6DM4	See 6DA4-A	6FG6	Call	6GZ5	Call	6JL6	See 6JK6
6CG3	See 6CD3	6DN3	See 6CM3	6FG7	Call	6H1N	8.80	6JL8	6.10
6CG7/6FQ7	11.60	6DN6	See 6CD6G	6F7	4.90	6H2N	5.50	6JM6-A	6.20
6CG8-A	4.70	6DN7	5.30	6F8G	4.20	6H4-GT	11.80	6JN6	5.00
6CH3	See 6CJ3	6DQ3/6DT3	10.60	6F15	8.80	6H6	2.90	6JN8	3.40
6CH8	3.60	6DQ3A/6DU3	9.40	6F17	6.60	6H6GT	2.90	6JQ6	3.90
6CJ3/6CH3	6.20	6DQ4	Call	6F33	7.60	6HA5/6HM5	4.90	6JR6	31.80
6CJ5/EF41	5.00	6DQ5	12.40	6FA7	4.60	6HA6/6HB6	Call	6JS6B	Call
6CJ6/EL81	14.30	6DQ6A-B/6GW6	7.90	6FC7	3.60	6HB5	16.30	6JS6C	46.30
6CK3/6CL3	5.50	6DR7	5.30	6FD5	2.90	6HB6	See 6HA6	6JT6A	30.90
6CK4	Call	6DR8/EBF83	2.90	6FD6	See 6ES6	6HB7	4.70	6JT8/6KR8	5.10
6CK5/EL41	11.50	6DS4	See 6CW4	6FD7	3.70	6HC8	4.80	6JU6	Call
6CL3	See 6CK3	6DS5	2.90	6FE5	4.10	6HD5	5.70	6JU8A	4.80
6CL5	5.70	6DS8/ECH83	4.70	6FG5	3.30	6HD7/6HJ7	2.90	6JV8	3.60
6CL6	6.00	6DT3	See 6DQ3	6FG6/EM84	6.50	6HE5/6JB5	6.20	6JW8/ECF802	6.20
6CL8A	4.80	6DT4	4.60	6FG7	4.80	6HF5	16.80	6JX8/ECH84	4.30
6CM3/6DN3	Call	6DT5	3.30	6FH5	Call	6HF8	5.00	6JY8	3.30
6CM4/EC86	5.10	6DT6A	3.20	6FH8	13.00	6HG5	See 6AQ5A	6JZ6	6.90
6CM5/EL36	Call	6DT8	2.90	6FJ7	3.30	6HG8/ECF86	4.30	6JZ8	6.10
6CM6	5.90	6DU3	See 6DQ3A	6FM7	4.30	6HJ5	4.90	6K5GT	4.10
6CM7	4.30	6DV4	Call	6FM8	2.90	6HJ7	See 6HD7	6K6GT	4.90
6CM8	3.90	6DW4B	See 6CJ3	6FQ5A/6GK5	7.10	6HJ8	Call	6K7	4.20
6CN6/EL38	Call	6DW5	4.80	6FQ7	See 6CG7	6HK5	4.20	6K7G	5.40
6CN7	4.60	6DX8/ECL84	4.40	6FS5	3.70	6HL8	6.10	6K7GT	4.00
6CQ4/6DE4	3.30	6DY5/EL82	4.80	6FV6	2.90	6HM5	See 6HA5	6K8	5.00
6CQ6/EF92	4.30	6DZ4	See 6AF4A	6FV8	See 6BR8A	6HM6/6HT6	2.90	6K8G	4.00
6CQ8	5.00	6DZ7	Call	6FW5	3.60	6HQ5	See 6HA5	6K8GT	Call
6CR6	2.90	6E5	Call	6FW8	4.70	6HR5	2.90	6K11/6Q11	8.60
6CS6/EH90	4.10	6E6	7.10	6FY5/EC97	5.50	6HR6	Call	6KA8	5.30
6CS7	4.90	6E7	Call	6FY7	Call	6HS5/6HV5A	9.40	6KD6	43.00
6CT3	12.20	6EA4/6EH4A	5.50	6G5/6U5	33.00	6HS6	Call	6KD8/6U8A	5.40
6CT7/EAF42	5.60	6EA5/6EV5	7.60	6G6G	5.70	6HS8	See 6BU8	6KD8/6U8A (Sentinal Brand)	3.30
6CU5	4.00	6EA7/6EM7	6.40	6G8G	3.00	6HT6	See 6HM6	6KE6	Call
6CU6	See 6BQ6GTB	6EA8	5.30	6G11	4.70	6HU6/EM87	Call	6KE8	7.10
6CU7/ECH42	7.60	6EB5	See 6AL5	6GA7	10.70	6HU8/ELL80	38.60	6KF8	See 6BU8
6CU8	3.30	6EB8/6GN8	5.70	6GB3A	7.20	6HV5A	See 6HS5	6KG6A/EL509	21.20
6CV7/EBC41	4.40	6EC4A	7.50	6GB5-A/EL500	6.10	6HW8	Call	6KG6A (Svetlana) See EL509	
6CW4/6DS4	13.30	6ED4/ED500	10.70	6GB6	10.30	6HZ5/6JD5	5.60	6KH8/ECLL800	Call
6CW5/EL86	4.80	6EF4/6EJ4-A	9.30	6GB7	7.70	6HZ6	3.30	6KL8	2.90
6CX8/6JA8	4.90	6EH4A	See 6EA4	6GC5	3.50	6HZ8	2.90	6KM6	13.70

TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE
6KM8	2.90	6N5	See 6AB5	6T7G	5.30	7F7	9.50	9AH9	7.90
6KN6	Call	6N6G	28.00	6T8-A	2.90	7F8	8.40	9AK8/PABC80	2.90
6KN8/6RHH8	17.90	6N7	6.60	6T9	2.90	7FC7	See 7EK7	9AK10	2.90
6KR8	See 6JT8	6N7G	Call	6T10	6.30	7G7/1232	Call	9AM10	5.70
6KS6	See 6BN6	6N7GT	8.60	6U3/EY80	3.30	7G8	Call	9AQ8/PCC85	4.30
6KT6	6.30	6N8/EBF80	5.70	6U4GT	3.20	7GS7	5.10	9AU7	2.90
6KT8	6.20	6N015 (delay relay)	17.90	6U5	See 6G5	7GV7	4.80	9BJ11	4.40
6KU8	2.90	6N020T (delay relay)	17.90	6U6GT	Call	7H7	4.60	9BR7	2.90
6KV6A	43.30	6N030 (delay relay)	17.90	6U7G	3.00	7HG8/8HG8	4.10	9CL8	2.90
6KV8	3.90	6N030T (delay relay)	17.90	6U8A	See 6KD8	7J7/7S7	4.10	9EA8	2.90
6KX8/ECC808	Call	6N045 (delay relay)	17.90	6U9/ECF201	2.90	7K7	7.40	9ED4/PD500	4.30
6KY8A	7.50	6N045T (delay relay)	17.90	6U10	6.10	7KY6/9KX6	6.40	9GH8A	4.40
6KZ8	4.30	6N060 (delay relay)	17.90	6V3-A	2.90	7L7	3.20	9GV8	2.90
6L4	8.60	6P1	8.80	6V4/EZ80	Call	7MP18	2.90	9JW8/PCF802	4.20
6L5G	4.60	6P5GT	15.20	6V6	14.90	7N7	8.40	9KC6	2.90
6L6	19.70	6P7G	7.60	6V6EH	6.50	7Q7	3.30	9KX6	See 7KY6
6L6EH	10.80	6Q5G	5.70	6V6G	Call	7R7	4.20	9KZ8	2.90
6L6G	Call	6Q7	4.20	6V6GT	13.00	7S7	See 7J7	9LA6	2.90
6L6GA	13.90	6Q7G	8.40	6V7G	Call	7T7	4.10	9MHH3	7.20
6L6GB	Call	6Q7GT	4.20	6V8	2.90	7V7/1231	4.10	9ML8	8.60
6L6GC (RCA black plate)	Call	6Q11	See 6K11	6V9	2.90	7W7	3.00	9MN8	7.60
6L6GC (Svetlana)	14.95	6QL6	8.80	6W4GT	3.00	7X6	3.00	9MP12	2.90
6L6GC (US)	27.50	6R3/EY81	Call	6W6GT	See 6DG6GT	7X7/XXFM	4.00	9RA6	Call
6L6WGB	See 5881	6R7	3.30	6W7G	Call	7Y4	2.90	9RAL1	4.30
6L6WXT (Sovtek)	10.40	6R7G/OM4	4.00	6X2/EY51	Call	7Z4	2.90	9RHR2	2.90
6L7	3.70	6R7GT	4.00	6X4/EZ90	5.00	8A8/9A8/9U8	2.90	9U8	See 8A8
6L7G	4.10	6R8	5.50	6X4WA	See 6202	8AC9	2.90	9V9/PCL200	4.80
6LB6	26.50	6RA6	Call	6X5G	Call	8AC10	5.40	10	82.70
6LB8	See 6JT8	6RA9	Call	6X5GT/EZ35	4.60	8AL9	6.60	10AL11	2.90
6LC8	2.90	6RHH8	See 6KN8	6X8-A	4.70	8AR11	7.60	10BQ5	Call
6LD20	8.80	6RK19	See 6BR3	6X9/ECF200	5.00	8AU8A/8BA8A	2.90	10C8	2.90
6LE8	5.70	6RP10	6.60	6Y5	Call	8AV11	4.80	10CW5/LL86	3.40
6LF6/6MH6	Call	6RP22	Call	6Y6G	3.40	8AW8A	7.50	10DA7	3.70
6LF8	7.90	6S2-A/EY87	2.90	6Y6GA	4.60	8B8	Call	10DE7	Call
6LH6A/6LJ6	8.40	6S4A	4.00	6Y6GT	3.80	8B10	4.80	10DR7/10FD7	Call
6LJ6	See 6LH6A	6S7	3.40	6Y7G	4.60	8BA8A	See 8AU8A	10DX8/LCL84	3.90
6LJ8	6.00	6S7G	3.90	6Y9/EFL200	3.70	8BA11	7.20	10E	Call
6LM8	6.40	6S8GT	2.90	6Z3	See 1V	8BH8	5.70	10EB8/10GN8	5.40
6LN8	See 6BL8	6SA7	3.00	6Z4/84	7.70	8BM11	4.80	10EG7	Call
6LQ6	See 6JE6C	6SA7GT	2.90	6Z5/12Z5	5.10	8BN8	2.90	10EM7	Call
6LQ8	4.70	6SB7-Y	4.30	6Z7G	Call	8BN11	5.30	10EW7	4.30
6LR6	38.60	6SC7	6.50	6Z10	See 6J10	8BQ5	2.90	10F1	8.80
6LR8	Call	6SC7GT	6.40	6ZY5G	Call	8BQ11	6.10	10F18	Call
6LT8	4.80	6SD7GT	4.30	7A4/XXL	5.70	8BU11	8.10	10FD7	See 10DR7
6LU6	4.20	6SF5	3.90	7A5	3.90	8CB11	5.70	10GF7A	7.70
6LU8	6.40	6SF5GT	4.20	7A6	3.30	8CG7/8FQ7	4.00	10GK6	Call
6LW6	30.10	6SF7	4.70	7A7	4.10	8CM7	2.90	10GN8	See 10EB8
6LX6	39.30	6SG7	5.10	7A8	3.00	8CN7	2.90	10GV8/LCL85	3.70
6LX8/LCF802	3.20	6SG7GT	4.40	7AD7	Call	8CS7	3.20	10HF8	3.30
6LY8	4.10	6SH7	3.40	7AF7	12.20	8CW5-A/XL86	3.70	10JA5	7.30
6M11	7.50	6SH7GT	Call	7AG7/7AH7	4.80	8CX8	2.90	10JA8	3.70
6MA6	11.80	6SJ7	4.20	7AH7	See 7AG7	8D2	Call	10JT8/10LY8	6.40
6MB8	4.30	6SJ7GT	8.90	7AJ7	Call	8EB8/8GN8	3.20	10JY8/10LZ8	5.10
6MD8	Call	6SK7	4.40	7AK7	5.30	8EM5	2.90	10KR8/10LB8	6.60
6ME6	41.20	6SK7GT	4.20	7AN7/PCC84	3.90	8ET7	3.70	10KU8	3.20
6ME8	5.30	6SK7WA	See 6137	7AU7	2.90	8FQ7	See 8CG7	10LB8	See 10KR8
6MF8	10.70	6SL7GT	7.70	7B4	3.00	8GJ7/PCF801	4.30	10LD6	8.10
6MG8	4.80	6SL7GT (Sovtek)	5.20	7B5	3.30	8GN8	See 8EB8	10LE8	2.90
6MH6	See 6LF6	6SL7WGT	8.30	7B6	4.20	8GU7	3.90	10LT8/10LW8	6.60
6MHH3	9.50	6SN7GT-B (full base)	13.00	7B7	Call	8HG8/PCF86	4.10	10LW8	See 10LT8
6MJ6	65.00	6SN7GT (brown base)	23.60	7B8	3.30	8HG8	See 7HG8	10LY8	See 10JT8
6MJ8	5.30	6SN7GT (Russia)	6.50	7C4/1203A	3.60	8JU8A	3.00	10LZ8	See 10JY8
6MK8	5.00	6SN7GT (Sovtek)	5.95	7C5	8.70	8JV8	5.00	10T10	5.90
6ML8	8.80	6SQ7	4.40	7C6	Call	8KA8	3.20	10Y (ST)	82.70
6MN8	6.10	6SQ7GT	4.00	7C7	3.90	8KR8	5.00	10Z10	7.30
6MP17	2.90	6SR7	4.00	7D4	Call	8LC8	2.90	11AF9	9.90
6MP18	Call	6SS7	4.70	7DJ8/PCC88	Call	8LS6	4.20	11AR11	5.00
6MQ8	5.70	6SS7GT	Call	7E5/1201	Call	8LT8	4.40	11B (ballast)	11.40
6MU8	8.10	6ST7	2.90	7E6	3.00	8SN7GTB	3.60	11BM8	6.30
6MV8	6.50	6SU7GTY/6188	Call	7E7	2.90	8U9	3.90	11BQ11	5.30
6N1P	See 6922/6N1P	6SV7	3.60	7EK7/7FC7	2.90	8X9	3.90	11BT11	8.40
6N3	See 6U3	6SZ7	3.00	7ES8	4.40	9-7 (ballast)	11.40	11CA11	7.60
6N03T (delay relay)	17.90	6T4	2.90	7EY6	3.00	9A8	See 8A8	11CF11	10.50

TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE
11CH11	8.60	12AU7WA	See 6189	12DM4	See 12D4	12MD8	6.00	14H7	3.30
11CY7	4.10	12AV5GA	2.90	12DQ4	5.40	12N03T (delay relay)	17.90	14J7	3.30
11DS5	7.00	12AV6	4.00	12DQ6-A	Call	12N05T (delay relay)	17.90	14JG8	See 14GT8
11E3	Call	12AV7	5.30	12DQ6B/12GW6	10.90	12Q7G	3.20	14K7	4.30
11FY7	8.60	12AW6	2.90	12DQ7	5.00	12Q7GT	3.20	14L7/UBC41	4.80
11HM7	6.10	12AX3	3.00	12DS7	Call	12R5	2.90	14N7	3.00
11JE8	2.90	12AX4GTA	2.90	12DT5	2.90	12RK19	See 12BR3	14Q7	3.30
11KV8	5.90	12AX4GTB	2.90	12DT7	See 12DF7	12S7/W142	4.30	14R7	3.30
11LQ8	Call	12AX7/ECC83 Mullard	60.00	12DT8	6.40	12S8GT	2.90	14S7	3.30
11LT8	3.30	12AX7EH	9.25	12DU7	2.90	12SA7	5.60	14 (ST)	5.50
11LY6	12.10	12AX7-A (US)	13.25	12DV7	3.00	12SA7GT	4.10	14W7	4.20
11MS8	6.10	12AX7A (Amperex Bugle Boy)	Call	12DV8	4.30	12SC7	2.90	14X7	3.30
11R3	2.90	12AX7A (RCA)	Call	12DW4A	2.90	12SF5	3.60	14Y4	Call
11Y9/LFL200	3.40	12AX7 (European)	11.50	12DW7/7247	20.50	12SF5GT	Call	15	19.50
12-1H (ballast)	11.40	12AX7 JJ	8.10	12DW8	Call	12SF7	5.00	15A6/PL83	3.30
12A5	4.10	12AX7LPS (Sovtek)	9.50	12DY8	Call	12SG7	5.00	15AF11A	3.90
12A6	2.90	12AX7WB (Sovtek)	See 7025B	12DZ6	Call	12SH7	5.50	15BD11A	6.30
12A6GT	2.90	12AX7WXT (Sovtek)	8.10	12EA6/12EK6	Call	12SJ7	3.30	15CW5/PL84	4.90
12A7	6.20	12AY3A	3.20	12EC8	2.90	12SJ7GT	Call	15DQ8/PCL84	4.40
12A8G	3.00	12AY7	9.50	12ED5	Call	12SK7	4.40	15E	Call
12A8GT	2.90	12AZ7A	5.30	12EG6	Call	12SK7GT	4.70	15EA7	See 13EM7
12AB5	4.30	12B4A	4.30	12EH5	See 12CA5	12SL7GT	4.20	15EW6	Call
12AC5/UF41	6.40	12B7/14A7	4.40	12EK6	2.90	12SN7GT-A-B	3.60	15EW7	3.30
12AC6	2.90	12B8GT	10.00	12EL6	2.90	12SQ7	6.60	15FM7	See 13FM7
12AC10A	Call	12BA6/HF93	4.20	12EM6	Call	12SQ7GT	5.90	15FY7	Call
12AD6/12AG6	2.90	12BA7	2.90	12EN6	2.90	12SR7/12SW7	3.90	15HB6	Call
12AD7	Call	12BB14	3.90	12EQ7	2.90	12SR7GT	4.90	15KY8A/17DL8	4.40
12AE6A	3.00	12BD6	Call	12EZ6	Call	12SW7	See 12SR7	15LE8	2.90
12AE7	4.20	12BE3	3.30	12F5GT	2.90	12SY7	Call	15MF8	7.90
12AE10	6.40	12BE6/HK90	5.75	12F8	2.90	12T10	8.10	15MX8	Call
12AF3	Call	12BF6/12BU6	2.90	12F60 (delay relay)	17.90	12U7	4.60	15R	19.10
12AF6	3.40	12BF11	8.30	12FK6	2.90	12V6GT	4.30	16A5/PL82	5.70
12AG6	See 12AD6	12BH7A	16.50	12FM6	2.90	12W6GT	3.60	16A8/PCL82	7.90
12AH7GT	Call	12BK5	2.90	12FQ7	6.00	12X4	2.90	16AK9	8.40
12AH8	Call	12BL6	2.90	12FQ8	9.00	12Z3	2.90	16AQ3/XY88	4.30
12AJ6	Call	12BN6	3.00	12FR8	10.30	12Z5	See 6Z5	16BQ11	2.90
12AJ7/HCH81	3.70	12BQ6GA	Call	12FX5	3.70	13A (ballast)	11.40	16BX11	2.90
12AL5	4.20	12BQ6GTA-B	2.90	12FX8A	2.90	13B (ballast)	11.40	16CB28	7.20
12AL8	2.90	12BR3/12RK19	2.90	12G4/12H4	Call	13C (ballast)	11.40	16GK6	2.90
12AL11	4.40	12BR7	6.90	12G8	Call	13CW4	19.50	16GY5	3.70
12AQ5	2.90	12BS3-A	3.90	12GA6	4.80	13D (ballast)	11.40	16KA6	Call
12AS5	3.30	12BT3	2.90	12GB7	8.80	13DE7	2.90	16LU8A	9.40
12A (ST)	32.00	12BT6	Call	12GC6	3.20	13DR7	4.70	16Y9	8.60
12AT6/HBC90	3.00	12BU6	See 12BF6	12GE5	Call	13E (ballast)	11.40	17A8/19EA8A	2.90
12AT7/E81CC (European)	22.10	12BV7/12BY7A	10.70	12GJ5A	Call	13EM7/15EA7	6.40	17AB9	Call
12AT7/E81CC (Mullard)	Call	12BV11	6.00	12GN7A/12HG7	6.20	13FD7	3.30	17AB10/17X10	5.60
12AT7/ECC81	Call	12BY7A	See 12BV7	12GT5	3.00	13FM7/15FM7	4.30	17AV5GA	4.70
12AT7 (Premium)	Call	12BZ6	12.10	12GW6	See 12DQ6B	13GB5/XL500	Call	17AX3	2.90
12AT7 (RCA)	10.50	12BZ7	5.30	12H4	See 12G4	13G (ballast)	11.40	17AX4GTA	2.90
12AT7WA	See 6201	12C5/12CU5	3.60	12H6	3.70	13GF7A	8.50	17AY3/17BS3A	3.70
12AT7WC	8.30	12C8	3.00	12HB25	8.60	13J10/13Z10	7.70	17BB14	Call
12AU6	3.40	12C8GT	3.30	12HE7	4.30	13JZ8-A	5.30	17BE3/17BZ3	4.30
12AU7A/ECC82	Call	12C180 (delay relay)	17.90	12HG7	See 12GN7A	13L (ballast)	11.40	17BF11	7.30
12AU7A (RCA)	18.40	12CA5/12EH5	2.90	12HL7	6.00	13V10	3.30	17BH3	4.80
		12CG7	Call	12J5	4.00	13Z10	See 13J10	17BQ6GTB	3.90
		12CK3/12CL3	3.70	12J5GT	2.90	14A4	Call	17BR3/17RK19	6.00
		12CL3	See 12CK3	12J7GT	3.00	14A5	Call	17BS3A	See 17AY3
		12CN5	2.90	12J8	2.90	14A7	See 12B7	17BW3	5.70
		12CR6	3.00	12JB6A	17.90	14A (ballast)	11.40	17BZ3	See 17BE3
		12CS6	2.90	12JF5	17.00	14AF7/XXD	5.60	17C5/17CU5	2.90
		12CT3	Call	12JN6-A	Call	14B6	5.40	17C8/UBF80	3.30
		12CT8	3.30	12JN8	2.90	14B8	3.10	17C9	7.20
		12CU5	See 12C5	12JQ6	Call	14BL11	6.20	17CK3	4.30
		12CU6	See 12BQ6GA	12JT6A	5.40	14BR11	6.50	17CT3	5.00
		12CX6	2.90	12JZ8	7.60	14C5	3.40	17CU5	See 17C5
		12D4/12DM4	2.90	12K5	3.30	14C7	3.30	17D4A/17DM4A	2.90
		12DA6/UF89	5.90	12K7G	4.70	14E6	5.90	17DE4	2.90
		12DB5	2.90	12K7GT	3.70	14E7	4.20	17DE5	2.90
		12DE8	2.90	12K8	3.00	14F7	4.20	17DL8	See 15KY8A
		12DF7/12DT7	Call	12K8GT	3.00	14F8	4.40	17DM4A	See 17D4A
		12DK6	3.30	12KL8	2.90	14G6/UBC81	3.90	17DQ6B/17GW6	6.30
		12DK7	Call	12L6GT	2.90	14GT8/14JG8	2.90	17DW4A	4.30
		12DL8	3.20	12L8GT	Call	14GW8/PCL86	4.10	17EW8/HCC85	2.90

AMPEREX BUGLE BOY ECC83/12AX7



Limited quantity of these authentic Bugle Boy twin triodes! \$55.00

TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	
17GE5	4.30	21EX6	4.30	25Z6GT	4.00	36MC6	18.50	75 (ST)	14.70	
17GJ5-A	5.70	21GY5	5.30	26A6	5.30	37	6.00	75TL	Call	
17GT5A	5.50	21HB5A	12.80	26A7GT	8.00	38	4.30	76 (ST)	13.80	
17GV5	Call	21JS6A/23JS6	21.00	26AQ8/UCC85	4.00	38A3/UY85	3.30	77	3.70	
17GW6	See 17DQ6B	21JV6	Call	26C6	5.70	38HE7/38HK7	9.30	78	5.40	
17H3	2.90	21JZ6	7.40	26C150 (delay relay)	17.90	38HK7	See 38HE7	79	4.00	
17JB6A	9.90	21KA6	13.40	26D6	5.70	39-44	3.30	80 (ST)	21.40	
17JF6	7.60	21KE6	4.80	26FZ6	Call	40A1 (ballast)	11.40	80 (tubular)	11.90	
17JG6-A	6.90	21KQ6	Call	26HU5	20.50	40B2 (ballast)	11.40	81 (ST)	15.30	
17JK8	2.90	21LG6A	Call	26LW6	20.80	40KD6	See 36KD6	82 (ST)	14.50	
17JM6	Call	21LR8	8.30	26LX6	17.00	40KG6A/PL519	15.40	83	22.60	
17JN6	6.20	21LU8	8.60	26N02T (delay relay)	17.90	41 (tubular)	10.50	83V	Call	
17JQ6-A	10	22	9.50	26 (ST)	16.90	41 (ST)	13.20	84	See 624	
17JT6A	Call	22BH3A	2.90	26Z5W	Call	42EC4-A	7.40	84M	Call	
17JZ8	7.90	22BW3	5.50	27BL8/UCF80	4.80	42KN6	8.80	85	4.00	
17KV6A	8.80	22DE4	6.00	27GB5/PL500	6.20	42 (ST)	19.00	85A1	See 0E3	
17KW6/PL508	9.50	22JF6/22KM6	9.30	27 (ST)	9.40	43	6.40	85A2	See 0G3	
17L6GT	Call	22JG6A	9.40	28D7-W	6.00	45	82.70	85AS	11.90	
17LD8	8.60	22JR6	6.60	29GK6	2.90	45A5/UL41	19.20	89Y	4.00	
17RK19	See 17BR3	22JU6	7.70	29KQ6	11.20	45B5/UL84	4.10	90C1	Call	
17W6GT	2.90	22KM6	See 22JF6	29LE6	11.90	45 SPECIAL	Call	95A1	5.70	
17X10	See 17AB10	22KV6A	7.30	30	18.40	45Z3	2.90	115C3 (delay relay)	17.90	
17Y9	9.40	23JS6	See 21JS6A	30A5/HL94	7.90	45Z5GT	4.10	115C3T (delay relay)	17.90	
17Z3/PY81	2.90	23Z9	7.20	30AE3/PY88	6.40	46 (ST)	20.80	115C5T (delay relay)	17.90	
18	Call	24A	11.20	30AG11	3.90	46B1 (ballast)	11.40	115C30 (delay relay)	17.90	
18A5	2.90	24BF11	3.90	30JZ6	14.80	47 (ST)	18.40	115C30T (delay relay)	17.90	
18AJ10	2.90	24G	See 3C24	30KD6	28.60	48	16.50	115C45T (delay relay)	17.90	
18FW6A	2.90	24JE6A	11.80	30MB6	12.50	49	12.10	115C60T (delay relay)	17.90	
18FX6A	2.90	24JE6C/24LQ6	22.10	30S	Call	50A1/D5TF30	Call	115C90 (delay relay)	17.90	
18FY6-A	2.90	24JZ8	4.70	31	13.80	50A1TR	15.80	115C90T (delay relay)	17.90	
18GB5	Call	24LQ6	See 24JE6C	31A3/UY41	7.60	*50A1TR is a solid state replacement for the 50A1			115C120 (delay relay)	17.90
18GD6A	2.90	25A6	4.20	31AL10	5.30				115C180 (delay relay)	17.90
18GV8/PCL85	6.90	25A6G	4.00	31JS6C	16.80	50A5	3.30	115N02T (delay relay)	17.90	
18RAL1	2.90	25A6GT	4.00	31LQ6	Call	50B5	2.90	115N05 (delay relay)	17.90	
19	6.20	25A7G	Call	31LR8	7.60	50B8/UCL82	Call	115N05T (delay relay)	17.90	
19AQ5	Call	25A7GT	5.30	32	5.70	50C5	4.00	115N010T (delay relay)	17.90	
19AU4GTA	4.00	25AC5G	Call	32ET5A	Call	50C6G	4.00	115N030 (delay relay)	17.90	
19BG6G-GA	Call	25AC5GT	4.20	32HQ7	4.70	50CD6G	5.70	115N030T (delay relay)	17.90	
19BR5	5.00	25AV5GA	Call	32L7GT	4.40	50DC4	3.00	115N045T (delay relay)	17.90	
19BY7/UF85	7.20	25AV5GT	7.00	33	5.70	50EH5	4.80	115N060 (delay relay)	17.90	
19C8	2.90	25AX4GT	3.60	33GT7	4.80	50FA5/50FK5	2.90	115N060T (delay relay)	17.90	
19CG3	5.30	25B8GT	Call	33GY7A	10.70	50FE5	3.30	115N075T (delay relay)	17.90	
19CL8A/19JN8	3.30	25BB14	3.90	33JR6	7.20	50FK5	See 50FA5	115N090T (delay relay)	17.90	
19D8/UCH81	3.20	25BK5	2.90	33JV6	4.90	50FY8	Call	115N0120T (delay relay)	17.90	
19DE3	4.60	25BQ6GT	3.40	34	4.00	50GY7	Call	117L7	5.70	
19DK3	5.40	25BR3/U329	4.80	34CD3/34CE3	3.60	50HC6	Call	117N7GT	6.20	
19DQ3	6.30	25C5	5.50	34CE3	See 34CD3	50HK6	Call	117P7GT	5.10	
19EA8A	See 17A8	25C6G	3.90	34DK3	8.00	50HN5	3.30	117Z3	5.00	
19EZ8	3.30	25CA5	4.20	34GD5A	2.90	50JY6	8.60	117Z4GT	4.00	
19FL8/UBF89	5.10	25CD6GB	6.60	34R3	2.90	50L6GT	Call	117Z6GT	5.70	
19FX5	4.80	25CG3	7.00	35-51	5.40	50 (ST)	6.40	120	Call	
19GQ7	2.90	25CK3	3.70	35A3	8.80	50X6	Call	120A (ballast)	11.40	
19HR6	2.90	25CT3	2.90	35A5	5.00	50Y6GT	3.60	121B (ballast)	11.40	
19HS6	Call	25CU6	Call	35B5	2.90	50Y7GT	2.90	124A	Call	
19HV8	5.70	25DK3	3.70	35C5	3.20	52	3.90	150B2	7.20	
19J6	2.90	25DK4	2.90	35DZ8	Call	53	35.70	150B3	Call	
19JN8	See 19CL8A	25DL3	8.60	35EH5	Call	53HK7	8.60	150C2	See 0A2	
19KG8	2.90	25DN6	3.60	35GL6	4.20	55	7.50	150C4	2.90	
19MR9	3.30	25DQ6A	3.00	35HB8	2.90	56	5.10	160L	See 572B	
19Q9	2.90	25E5/PL36	Call	35L6GT	5.00	57	Call	171-A	Call	
19T8	6.40	25EC6	Call	35LR6	19.50	58	4.60	211/VT-4C	182.70	
19V8	4.00	25EH5	3.00	35T	Call	58HE7	Call	211-4 (ballast)	11.40	
19X3	4.80	25F5	2.90	35W4	6.75	59	Call	213A	Call	
19X8	2.90	25HX5	Call	35X4	Call	60FX5	Call	215A	29.80	
19Y3/PY82	Call	25JZ8	8.10	35Y4	3.60	60HL5	3.30	221A	19.10	
20-4 (ballast)	11.40	25L6	6.00	35Z3	4.30	61BT	Call	222	Call	
20AQ3/LY88	Call	25L6GT/25W6	5.50	35Z4GT	3.30	65	Call	227	Call	
20EZ7	Call	25N6G	Call	35Z5GT	5.10	70L7GT	Call	230	Call	
20LF6	Call	25T/HK-24	Call	35Z6G	6.50	71A (ST)	4.60	246	Call	
20X672	8.80	25W4GT	2.90	36	6.40	72	35.70	256	Call	
21A6/21B6	6.10	25W6	See 25L6GT	36AM3B	2.90	73	3.90	262A-B (WE)	Call	
21B6	See 21A6	25Y5	3.60	36KD6/40KD6	24.70	75C1	5.70	272A (WE)	Call	
21B (ballast)	11.40	25Z5	3.90	36LW6	Call		10.70	274A (WE)	Call	

TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE
275A (WE)	Call	501 (delay relay)	17.90	837	7.60	1619	8.60	5687	3.90
282A (WE)	Call	502A	12.40	841	28.00	1620	10.50	5690	72.00
297A (WE)	Call	502AX	See 2E35	843	Call	1621	Call	5691 (black/brown base)	22.10
300B (Nickel Anode, China)	72.50	512AX	11.50	845 (China)	41.00	1622	Call	5691 (red base)	42.00
300B (Sovtek)	83.00	518AX	Call	864	33.00	1625	4.80	5692 (black/brown base)	Call
300B (WE)	Call	520A	See 5755	865	19.10	1626	3.90	5692 (red base)	Call
310A-B (WE)	54.80	526AX	8.60	866A	19.50	1629	Call	5693	15.20
311A-B (WE)	39.10	527AX	8.60	866AX	Call	1631	Call	5696-A	3.90
313C-CA	4.80	532A	See 1B32	866JR	Call	1632	Call	5702	11.60
313CC (ballast)	11.40	533AX	9.50	868/PJ23	17.20	1633	4.80	5703	7.60
316A	38.70	534AX	9.50	872-A	57.10	1635	Call	5704	8.60
323A-B	9.50	543	Call	874 (globe)	18.20	1639	4.40	5718-A/EC70	8.10
327A	Call	547DX	Call	874 (ST)	8.60	1641/RK60	8.60	5719	Call
328A	Call	548DX	See 6418	876	23.80	1642	See 2C21	5721/QK209	82.20
328A (WE)	41.20	572B/160L (US)	Call	878A	14.30	1654	Call	5722	13.20
329A (WE)	Call	572B (China)	55.50	879	See 2X2A	1852	See 6AC7	5725/6AS6W	3.20
331A	See 805	572B (Svetlana)	73.40	884	8.60	1853	See 6AB7	5726/6AL5W	2.90
337A (WE)	Call	578	See 8020	885	5.70	2022	Call	5727	2.90
338A (WE)	Call	579B	33.00	902-A	Call	2033	5.60	5744/6151	10.50
348A (WE)	Call	592	See 3-200A3	917	22.80	2050 (ST)	16.80	5749/6BA6W	3.30
350B (WE)	Call	604/7014	Call	918/CE-1C	21.90	2050A (tubular)	Call	5750/6BE6W	3.30
352A (WE)	Call	623	Call	919	23.80	2050W	16.80	5750-S	Call
353A (WE)	Call	627	Call	920	15.20	2051	Call	5751	10.30
354A (WE)	35.70	631P1/SN4	Call	921	5.70	3533	8.60	5755/520A	8.90
359-A	Call	632B	Call	922	25.70	4042	20.50	5763	11.50
371B	19.10	635/7019	62.00	923	19.10	4043	34.20	5767	Call
375A (WE)	16.70	672A	82.70	924	See 1P41	4046-A	35.70	5768	Call
376C (WE)	9.50	703A	Call	925	19.10	4049D	See AH221	5783	7.60
377A (WE)	16.50	704A	Call	926	19.10	4652	See 8042	5784	Call
381A (WE)	19.10	705A	12.20	927/CE25C-D	Call	4687A	Call	5785	4.80
384A	Call	705A (WE)	Call	928	Call	5516	Call	5796	35.70
386A	Call	707B	See 2K28	929	Call	5517	14.30	5798	5.50
388A	Call	709A	20.50	930	8.60	5544	See 734	5814A	4.95
394A	19.10	710/6011	Call	931A-B	39.30	5550/GL415	Call	5823/Z900T	27.40
395A	14.30	710L/7509A	Call	932/1229	4.80	5557/FG-17	Call	5824	17.20
396A/2C51	5.70	713A	5.50	934	31.40	5558/FG-32	52.90	5829	12.40
396A/2C51 (WE)	22.60	714/7021	Call	935	97.70	5559/FG-57	47.70	5834	Call
397A	See 2K56	715A-B-C	Call	950 (ST)	Call	5560/FG-95	71.40	5837	Call
398A (WE)	Call	716/6855	Call	951	See 1B4T	5581	17.20	5839	7.20
399A-B	11.50	717A	19.10	954	6.50	5582	33.30	5840/6225	11.50
400A-B	11.50	719A	5.00	955	4.80	5590/401A	Call	5841	Call
401A	See 5590	724B	17.20	956	8.60	5591/403B	10.90	5842/417A	11.90
403A (WE)	11.90	726A-B-C	10.50	957	Call	5608A	28.60	5844	6.50
403B	See 5591	734/5544	Call	958	7.60	5610	5.70	5845	4.80
404A	See 5847	734L	Call	959	8.60	5618	4.10	5847/404A	20.50
407A	Call	760/6858	125.00	967	See 5557	5632	See C3J	5851	Call
408A	See 6028	800	Call	991	2.90	5635	Call	5854	2.90
409A	6.00	801-A	102.60	1005	13.70	5636	7.60	5861/EC55	95.30
412A/6754	8.60	802	11.50	1006	Call	5637	7.60	5869/9950	Call
412A (WE)	Call	803	28.60	1007	2.90	5641	10.90	5876A	23.80
413B	23.80	804	Call	1026	17.90	5642	7.60	5877	Call
415A	4.30	805/331A	95.30	1038	See 6438	5643	10.90	5879	9.50
416B/6280	17.90	807	15.30	1054	Call	5644	19.10	5881/6L6WGB	26.25
416D	24.30	807W	See 5933	1201	See 7E5	5647	16.20	5881 (Sovtek)	8.50
417A (WE)	Call	809	Call	1203A	See 7C4	5651A	3.20	5881WXT (Sovtek)	10.50
418A	Call	810	Call	1217	2.90	5653	13.30	5886	76.80
420A (WE)	60.60	811-3 (Svetlana)	30.50	1222A	Call	5654/6AK5W	3.60	5889	47.70
421A (WE)	Call	811-10 (Svetlana)	30.50	1229	See 932	5656	14.30	5894/AX9903	61.50
422A (WE)	193.20	811A (China)	14.30	1231	See 7V7	5659	2.90	5895	35.70
423A-B	Call	811A (US)	41.70	1232	See 7G7	5660	2.90	5896	7.60
423C	8.60	812A (China)	28.40	1236	19.30	5661	Call	5899	Call
426A	7.60	812A (Svetlana)	36.80	1252	See 6KD8	5662	4.80	5901	See 5840
427A	4.80	812-A (US)	Call	1273	Call	5663	3.00	5902	7.60
429A	13.20	813	Call	1280	Call	5664	See C1B-A	5903	4.80
432B (WE)	Call	813 (China)	30.50	1294	See 1R4	5670/2C51W	7.30	5905	16.50
443A (WE)	7.20	814	Call	1299	See 3D6	5672/DL69	5.30	5906	Call
446A	7.20	815	14.30	1469	See 2K55	5675	38.20	5907/6056	6.00
451	See 8020	816	22.80	1603	77.40	5676	7.20	5915	4.30
464	See 2C44	826	41.10	1609	7.60	5678	2.90	5916	Call
464A	See 2C43	828	71.40	1612	4.60	5679	8.60	5920/E90CC	8.60
481B	Call	829B/3E29	16.70	1613	7.90	5684	See C3JA	5931/5U4WG	26.50
484	47.70	832A	Call	1614	28.80	5685	See C6J-K	5932	29.80
485 (ST)	Call	836	24.90	1616	7.60	5686	8.60	5933/807W	15.80

TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE
5947	9.50	6197	3.90	6689/E83F	12.10	7247	See 12DW7	8032A	See 6883B
5962	2.90	6201/12AT7WA	8.40	6754	See 412A	7258	3.90	8035	Call
5963/12AU7A	5.00	6202/6X4WA	4.30	6760	8.80	7289/2C39A	38.20	8042/4652	11.50
5964	3.10	6203	9.50	6761	9.50	7296	181.70	8049	Call
5965-A	2.90	6205	4.80	6771	77.40	7306A	See C3JA	8056	22.80
5972	Call	6206	Call	6775	See 4-400C	7308/E188CC	Call	8058	Call
5979	Call	6211A	3.90	6777	83.40	7308 (gold pins)	Call	8068	57.30
5987/SC968B	15.40	6213	8.40	6788	2.90	7316	26.50	8070	Call
5991	See 8422	6216	Call	6802	15.20	7320/E84L	Call	8071	Call
5992 (Bendix)	Call	6225	See 5840	6807	Call	7323	Call	8072	154.40
5993	Call	6227/E80L	42.90	6814	2.90	7327	Call	8077	See 7054
5998	Call	6247	12.90	6816	Call	7355	18.20	8100	2.90
5998A	Call	6252	47.90	6829	11.50	7360	49.10	8102	2.90
6000	Call	6263A	41.70	6832	7.20	7370	8.60	8103	Call
6004/U50	3.20	6265	6.10	6842	33.30	7377/QQE04-5	57.10	8106	12.90
6005/6AQ5W	5.10	6267/EF86	35.00	6844A	30.50	7408/6V6GT	Call	8113/6CY5	49.60
6011	See 710	6267 (Russia)	17.90	6850	33.30	7410	15.20	8116	Call
6012	83.40	6267 (Svetlana)	14.60	6855	See 716	7427	2.90	8121	90.60
6014	See C1K	6279	See 5C22	6858	See 760	7462	Call	8156	19.10
6021	5.00	6280	See 416B	6872	Call	7475	2.90	8165	See 4-65A
6028/408A	2.90	6286	3.90	6883B/8552	17.90	7509A	See 710L	8167	See 4CX300A
6038	See 1B35A	6293	23.80	6897	See 7289	7534/E130L	41.10	8168	Call
6045	10.50	6299	214.20	6900 (Bendix)	78.80	7536	Call	8170W	See 4CX5000R
6050	7.20	6308	3.90	6907	75.30	7543/E130LF	4.30	8171	See 4CX10000D
6056	See 5907	6328	47.70	6909	14.30	7548	Call	8223/E288CC (gold pins)	36.75
6060/ECC801	10.70	6336-A-B	59.00	6910	19.10	7550	7.20	8223/E288CC	31.50
6062/M8096	8.60	6350	4.00	6919	4.80	7551	8.60	8228/ZZ1000	9.00
6064	4.30	6352	Call	6922/6N1P (Svetlana)	5.00	7554	52.40	8233/E55L	39.10
6065	5.70	6354	11.90	6922/E88CC	9.40	7558	9.50	8245	See 4CX250K
6072-A	14.30	6360-A	9.40	6922 (Sovtek)	8.90	7580	See 4CX250R	8252	See 4PR60B
6073	Call	6360-A (Telefunken)	14.90	6923/EA52	57.10	7580W	See 4CX250R	8281	See 4CX15000A
6074	4.80	6374/EY84	11.50	6931	2.90	7581A/KT66	Call	8298A	See 6146B
6080	8.60	6384	44.60	6939	30.50	7586	33.30	8321	See 4CX350A
6080WC	9.90	6386	Call	6945	Call	7587	39.30	8322	See 4CX350F
6082-A	14.00	6414	10.50	6948	17.90	7591A	81.40	8353	8.60
6083/AX9909	193.20	6417	6.60	6957	9.50	7643/E80CF	28.00	8380	Call
6084/E80F	30.90	6418/548DX	11.50	6973	31.40	7687	Call	8393	14.30
6085/E80CC	48.90	6438/1038	8.40	6977/DM160	12.40	7693	11.50	8416	14.30
6086	9.50	6442	57.10	7009	66.70	7695	4.40	8417	55.00
6087/5Y3WGTB	Call	6476A	38.20	7014	See 604	7698	Call	8422/5991	30.50
6095	Call	6483	Call	7019	See 635	7699	19.10	8423	23.80
6096	See 5654	6485/6AH6WA	4.10	7021	See 714	7701	Call	8425A/6AU6A	4.40
6097	See 5726	6489/EA76	9.50	7025i	23.00	7710/Z70U	Call	8426	4.80
6098/6AR6WA	Call	6519	Call	7025B (Sovtek)	6.80	7711	Call	8445	2.90
6099	4.30	6520	See 6AS7G	7027-A	55.10	7716	4.30	8458/YL1240	Call
6100/6C4WA	3.60	6528-A	71.40	7034	See 4X150A	7717	3.90	8463	19.10
6101/6J6WA	3.00	6533	14.30	7035	See 4X150D	7719	14.30	8502	Call
6106/5Y3WGT	10.20	6542	33.30	7036	7.30	7722/E280F	17.20	8532	6.00
6110	8.60	6550-A (US)	Call	7044	8.60	7724	Call	8552	See 6883B
6111	6.60	6550C (Svetlana)	27.95	7054/8077	4.30	7731	4.30	8556/EC8010	20.80
6112	16.50	6550 ST (US)	Call	7056	6.00	7732	4.30	8560AS	Call
6115A	298.20	6550WD (Sovtek)	15.50	7057	4.80	7734	See 6GE8	8560AS (Svetlana)	Call
6118	4.20	6550WE (Sovtek)	17.30	7058	6.00	7737/E186F	Call	8577	Call
6130	See 3C45	6611	5.50	7059	4.80	7738	9.50	8595	Call
6132	See CV4055	6612	Call	7060	Call	7751/E235L	35.30	8596	Call
6134/6AC7WA	8.80	6626/0A2WA	3.70	7061	4.00	7768	107.10	8608	28.60
6136/6AU6WA	3.90	6627/0B2WA	Call	7062/E180CC	8.60	7788/E810F	33.70	8627	27.40
6137/6SK7WA	5.50	6628	4.80	7077	77.40	7801	Call	8643	130.20
6140	8.80	6661/6BH6	7.00	7094	Call	7867	19.00	8906	Call
6145	9.50	6662/6BJ6	Call	7117	29.80	7868	Call	8910	See 4CX15000J
6146-A	19.80	6663/6AL5	3.00	7119/E182CC	13.80	7894	Call	8950	Call
6146B/8298A	28.95	6664/6AB4	3.30	7153	Call	7895	12.10	8957	See 4CX250BC
6146B-CHINA	15.80	6669/6AQ5A	3.60	7167	3.90	7898	8.00	8964	Call
6146W/7212	21.90	6676/6CB6A	3.60	7189-A	Call	7902	See 734L	8965	23.80
6151	See 5744	6677/6CL6	3.30	7193	See 2C22	7905	Call	9001	5.70
6153	14.30	6678/6U8A	Call	7199	28.60	7963	Call	9002	5.70
6155	100	6679/12AT7	8.40	7199 (Sovtek)	16.50	7983	33.30	9003	5.70
6159A	6.60	6680/12AU7A	5.00	7203	See 4CX250B	7984	11.80	9004	5.70
6161	34.20	6681/12AX7A	15.00	7212	See 6146W	8005	Call	9005	10.50
6173	29.80	6686/E81L	7.60	7233	11.20	8008	Call	9006	3.30
6186/6AG5WA	Call	6687/E91H	7.60	7235	131.30	8012-A	26.50	9950	See 5869
6188	See 6SU7GT	6688/E180F	8.60	7236	41.10	8013-A	33.30	18042	See 6086
6189/12AU7WA	6.10	6688/E180F (gold pins)	11.40	7239	52.40	8020/451	58.90	18046	7.20

TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE
38142	See 45 Special	DR2010	Call	EC900	See 6HA5	EFP60	11.50	GS10D	11.90
A1714	Call	DR2020	11.50	EC903	Call	EH90	See 6CS6	GV3A-1400	17.90
A2134	Call	DR2100	16.40	EC8010	See 8556	EK90	See 6BE6	GV3A-2500	17.90
A2293	Call	DR2115	Call	ECC40	12.60	EL1C	See 3B22	GV3AB-1500	Call
AA5	23.00	DR2120	8.10	ECC81	See 12AT7	EL3C-L	Call	GV5A-1600	17.90
ABL1	Call	DR2200	Call	ECC82	See 12AU7A	EL6C	Call	GV5A-2000	17.90
AC701	276.20	DR2210	Call	ECC83	See 12AX7A	EL12N	Call	GY501	11.00
AH221/CV5	4.80	DY51	See 1BG2	ECC85	See 6AQ8	EL33	See 6AG6G	GY802	5.50
ARP19	Call	DY80	See 1BX2	ECC86	See 6GM8	EL34	See 6CA7	GZ34	See 5AR4/GZ34
AX9903	See 5894	DY86	See 1S2	ECC88	See 6DJ8	EL34 (Svetlana)	14.95	GZ37	59.50
AX9909	See 6083	DY87	See 1S2-A	ECC91	See 6J6A	EL34 (Tesla)	13.50	H63	See 6F5
AX9912	See 5C22	DY802	See 1BQ2	ECC189	See 6ES8	EL34EH	9.20	HABC80	See 19T8
AZ11	6.10	E34L (Tesla)	14.30	ECC801	See 6060	EL34WXT (Sovtek)	9.40	HBC90	See 12AT6
AZ41	9.70	E55L	See 8233	ECC803S (Tesla)	26.30	EL36	See 6CM5	HCC85	See 17EW8
B5991	See 8422	E80CC	See 6085	ECC804	Call	EL37	Call	HCH81	See 12AJ7
BH	Call	E80CF	See 7643	ECC808	See 6KX8	EL38	See 6CN6	HCH81/12AJ8	11.00
BK42DG (ballast)	11.40	E80F	See 6084	ECF80	See 6BL8	EL41	See 6CK5	HF93	See 12BA6
BR	15.60	E80L	See 6227	ECF82	See 6KD8	EL42	11.00	HK-24	See 25T
C1A	82.70	E80T	10.70	ECF83	8.60	EL81	See 6CJ6	HK90	See 12BE6
C1B-A/5664	Call	E81L	See 6686	ECF86	See 6HG8	EL82	See 6DY5	HL23/VR130	5.70
C1J-A	See C1K	E82CC	See 6189	ECF200	See 6X9	EL84	See 6BQ5	HL94	See 30A5
C1K/6014	102.60	E83F	See 6689	ECF201	See 6U9	EL85	See 6BN5	HY69	Call
C3J/5632	Call	E84L	See 7320	ECF801	See 6GJ7	EL86	See 6CW5	HY75	Call
C3JA/5684	Call	E86C	11.90	ECF802	See 6JW8	EL90	See 6AQ5A	HY615	12.10
C3M	Call	E88CC	See 6922	ECF804	6.20	EL91	See 6AM5	K49C (ballast)	11.40
C6J/5C21	42.90	E90CC	See 5920	ECH3	11.70	EL95	See 6DL5	K67B (ballast)	11.40
C6J-K/5685	Call	E90F	See 6BH6	ECH21	9.30	EL183	Call	KL75 (ballast)	11.40
C6K-KF	Call	E91H	See 6687	ECH42	See 6CU7	EL360	Call	KL45 (ballast)	11.40
CAA-322	Call	E92CC	9.90	ECH80	See 6AN7A	EL500	See 6GB5-A	KT66	See 7581A
CE-1C	See 918	E99F	See 6BJ6	ECH81	See 6AJ8	EL508	22.10	KT66 (GEC)	Call
CE25C	See 927	E130L	See 7534	ECH83	See 6DS8	EL509	See 6KG6A	KT88 (China)	23.00
CE25D	See 927	E130LF	See 7543	ECH84	See 6JX8	EL509 (Svetlana)	33.60	KT88 (GEC)	Call
CK1114	6.00	E180CC	See 7062	ECH200	See 6V9	EL802	16.50	KT88 (Penta)	19.40
CK1121	17.90	E180F	See 6688	ECL80	See 6AB8	EL803	5.00	KT88 (Sovtek)	20.90
CT854	Call	E182CC	See 7119	ECL81	9.50	EL803S	Call	KT88 (Svetlana)	39.95
CV5	See AH221	E186F	See 7737	ECL82	See 6BM8	EL805	7.60	KT88 (Tesla)	39.00
CV136	See 6AM5	E188CC	See 7308	ECL83	Call	EL822	Call	KTW61	7.70
CV303	See EF22	E235L	See 7751	ECL84	See 6DX8	ELL80	See 6HU8	KX55CG (ballast)	11.40
CV2225	See 150B2	E280F	See 7722	ECL85	See 6GV8	EM34	See 6CD7	L49D (ballast)	11.40
CV2486	19.80	E288CC	See 8223	ECL86	See 6GW8	EM71	Call	LCF201	See 5U9
CV2721	See 6CJ6/EL81	E810F	See 7788	ECL113	10.30	EM80	See 6BR5	LCF801	See 5GJ7
CV4055/6132	6.00	E1148	3.60	ECL805	Call	EM81	See 6DA5	LCF802	See 6LX8
CV5331	See 6ES8	EA52	See 6923	ECLL800	See 6KH8	EM84	See 6FG6	LCL84	See 10DX8
D5TF30	See 50A1	EA53	90.60	ED500	See 6ED4	EM87	See 6HU6	LCL85	See 10GV8
DA2120	Call	EA76	See 6489	EF9	Call	EM1188C	Call	LF183	See 4EH7
DAC32	Call	EAA91	See 6AL5	EF12	Call	EMM801	Call	LF184	See 4EJ7
DAF40	8.80	EABC80	See 6AK8	EF22	Call	EY51	See 6X2	LFL200	See 11Y9
DAF41	Call	EAF42	See 6CT7	EF36	See 6J7	EY80	See 6U3	LL86	See 10CW5
DAF91	See 1S5	EAF801	9.10	EF37A	13.00	EY81	See 6R3	LY88	See 20AQ3
DAF96	See 1AF5	EAM86	See 6GX8X	EF40	6.00	EY82	See 6U3/6N3	M-2057	Call
DC90	8.50	EB41	4.80	EF41	See 6CJ5	EY84	See 6374	M8082	Call
DC96	Call	EB91	See 6AL5	EF42	Call	EY87	See 6S2-A	M8083	5.30
DCC90	See 3A5	EBC11	8.80	EF43	13.20	EY88	See 6AL3	M8096	See 6062
DF91	See 1T4	EBC33	Call	EF50	3.60	EY91	Call	MC1400	Call
DF92	See 1L4	EBC41	See 6CV7	EF80	See 6BX6	EY802	5.50	MHLD6/VR101	6.20
DF96	See 1AF4	EBC81	See 6BD7A	EF83	See 6BK8	EZ2/3	11.00	ML381	See 7289
DF97	See 1AN5	EBC90	Call	EF85	See 6BY7	EZ35	See 6X5GT	MU12-14	Call
DG7-32	93.70	EBC91	See 6AV6	EF86	See 6267	EZ40	See 6BT4	N142	See 45B5
DG10F	3.00	EBF80	See 6N8	EF89	See 6DA6	EZ41	6.60	NL809	28.60
DK91	See 1R5	EBF83	See 6DR8	EF91	See 6AM6	EZ80	See 6V4	NL841	24.90
DK92	See 1AC6	EBF89	See 6AD8	EF92	See 6CQ6	EZ81	See 6CA4	NL848	Call
DK96	See 1AB6	EBL21	Call	EF93	See 6BA6	EZ90	See 6X4	NL5442A	Call
DL41	Call	EC52/VR137	Call	EF94	See 6AU6A	FG-17	See 5557	NL5866STX	Call
DL64	Call	EC54/CV66	Call	EF95	See 6AK5	FG-27A	61.50	NL5870S	13.20
DL69	See 5672	EC55	See 5861	EF96	See 6AG5	FG-32	See 5558	NL5992	Call
DL92	See 3S4	EC70	See 5718	EF97	See 6ES6	FG-57	See 5559	NR43	Call
DL94	See 3V4	EC86	See 6CM4	EF98	See 6ET6	FG-81A	Call	NS1	Call
DL96	See 3C4	EC88	See 6DL4	EF183	See 6EH7	FG-95	See 5560	OM4	See 6R7G
DL98	See 3B4	EC90	See 6C4	EF184	See 6EJ7	FG-105	Call	ORP60	8.80
DM70	See 1M3	EC91	See 6AQ4	EF800	Call	FG-178-A	19.10	ORP90	Call
DM71	See 1N3	EC92	See 6AB4	EF804	Call	FM1000	7.00	PABC80	See 9AK8
DM160	See 6977	EC95	See 6ER5	EF805S	8.30	GL415	See 5550	PC88	See 4DL4
DR2000	Call	EC97	See 6FY5	EFL200	See 6Y9	GS10C	63.70	PC93/77A90	Call

TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE
PC95	See 4GK5	PL84	See 15CW5	SV572-10	58.80	UF43	11.00	VR150	See 0D3-A
PC96	8.80	PL95	11.00	SV572-160	Call	UF80	2.90	VU111S	11.00
PC900	See 4HA5	PL500	See 27GB5	SV572-3	58.80	UF85	See 19BY7	VX64	Call
PCC84	See 7AN7	PL508	See 17KW6	SV572-30	58.80	UF86	26.50	W101	Call
PCC85	See 9AQ8	PL519	See 40KG6A	T-20	Call	UF89	See 12DA6	W142	See 12S7
PCC88	See 7DJ8	PL5557/PL17	See 5557	TD03-10/DET2	Call	UL41	See 45A5	X66/CV1099	4.30
PCC89	See 7EK7	PM84	Call	TJ801K-1 (ballast)	11.40	UL84	See 45B5	X101	6.60
PCC189	See 7ES8	PY80	See 19X3	TJ880	11.50	UM11	Call	X199	66.20
PCF80	See 8A8	PY81	See 17Z3	U37	See 1T2	UM80	Call	X201A/301A	38.90
PCF82	See 8A8	PY82	See 19Y3	U50	See 6004	UM81	16.50	XCF80	See 4BL
PCF86	See 8HG8	PY83	See 17Z3	U329	See 25BR3	UM85	33.10	XF183	See 3EH7
PCF200	See 8X9	PY88	See 30AE3	U709	Call	URB-001 (universal ballast)	11.40	XF184	See 3EJ7
PCF201	See 8U9	PY800	2.90	UABC80	4.30	URB-002 (universal ballast)	11.40	XL86	See 8CW5-A
PCF800-30C15	11.00	PY801	2.90	UAF42	See 12S7	URB-003 (universal ballast)	11.40	XL500	See 13GB5
PCF801	See 8GJ7	QK209	See 5721	UBC41	See 14L7	URB-004 (universal ballast)	11.40	XXB	See 3C6
PCF802	See 9JW8	QQE03-12	See 6360-A	UBC81	See 14G6	URB-005 (universal ballast)	11.40	XXD	See 14AF7
PCF806	See 8GJ7	QQE03-20	13.20	UBF11	Call	URB-006 (universal ballast)	11.40	XXFM	See 7X7
PCF808	5.50	QQE04-5	See 7377	UBF80	See 17C8	URB-009 (universal ballast)	11.40	XXL	See 7A4
PCH200	See 9V9	QS150-45	Call	UBF89	See 19FL8	URB-010 (universal ballast)	11.40	XY88	See 16AQ3
PCL81	9.50	R20	See 2J2	UBL1	Call	UY41	See 31A3	Y65	Call
PCL82	See 16A8	R145	11.00	UBL21	Call	UY82	11.00	Y-1938	Call
PCL84	See 15DQ8	R1130B	See 1B59	UCC84	Call	UY85	See 38A3	YC95	See 3ER5
PCL85	See 18GV8	RK34	See 2C34	UCC85	See 26AQ8	UY92	11.00	YL1080	Call
PCL86	See 14GW8	RK60	See 1641	UCF12	44.10	V199	89.30	YL1240	See 8458
PCL800-30PL13	11.00	RK61	12.80	UCF80	See 27BL8	V201A	Call	Z66	Call
PD500	See 9ED4	RX233A	See 2C33	UCH4	11.00	VI103-EM35	Call	Z70U	See 7710
PFL200	See 16V9	SC968B	See 5987	UCH42	See 14K7	VP41	11.00	Z803U	See 6779
PJ23	See 868	SN4	See 631P1	UCH81	See 19D8	VR53	6.60	Z900T	See 5823
PL21	See 2D21	SP2	Call	UCL81	Call	VR65	5.70	ZM1000	30.50
PL36	See 25E5	SP2H	Call	UCL82	See 50BM8	VR75	See 0A3	ZM1001	46.40
PL81	See 21A6	STV85-10	6.60	UCL83	2.90	VR90	See 0B3	ZP1400	Call
PL82	See 16A5	SU2150A/VU120	5.30	UF41	See 12AC5	VR105	See 0C3-A	ZZ1000	See 8228
PL83	See 15A6	SV83 (Svetlana)	5.00	UF42	Call	VR135	Call		

USED TUBES

TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE	TUBE TYPE	PRICE
01A (ST)	Call	6KV6A	Call	42 (ST)	9.60	247	Call	6080	5.30
2A3	35.70	6L6	5.00	45 SPECIAL	Call	250	221.10	6146-A-B	11.80
2A3 (single plate)	Call	6L6G	17.90	45 (ST)	33.00	256	Call	6336-A-B	19.10
2A5	6.50	6L6GC(US)	14.30	46 (ST)	Call	280	44.10	6550-A (US)	Call
5AR4/GZ34 (US/European)	Call	6L6GC (RCA black plate)	31.50	47 (ST)	8.40	281	28.60	6550 ST (US)	47.70
5AS4A/5U4GB	8.10	6LB6	13.20	50 (ST)	Call	300B (WE)	Call	7027-A	27.60
5R4GY/A/B	6.00	6LF6/6MH6	Call	71A (ST)	Call	310A-B (WE)	29.80	7591A	Call
5R4WGA-B-Y	6.00	6LR6	Call	75 (ST)	7.30	311A-B	Call	8005	Call
5U4G/5AS4	11.40	6LX6	19.20	76 (ST)	6.90	350B (WE)	Call	8068	30.30
5V4GA	5.10	6MJ6	32.40	80 (ST)	10.70	421A (WE)	Call	8643	Call
5V4G	6.30	6N6G	14.20	81 (ST)	Call	485	12.10	8908	Call
5Y3G	Call	6P5G	Call	82 (ST)	Call	715A-B-C	16.40	8950	Call
6A5G	Call	6Q7G	Call	83	11.90	801-A	Call	6087	6.30
6A7	Call	6V6G	8.80	112A	28.00	805	47.70	BR	Call
6AC5G	Call	6V6GT	Call	171-A	35.70	807	7.40	C3J-5632	Call
6AS7G/6520	3.90	10 (ST)	44.70	203A	Call	810	57.10	KT66 (GEC)	Call
6B4G	16.70	10Y (ST)	44.70	210	Call	811A (US)	17.90	KT-88 (British)	Call
6BK4C/6EL4A	Call	12A (ST)	Call	211/VT-4C	93.70	813	21.50	KT88 (GEC)	Call
6E5	Call	12AX7-A(US)	6.95	222	9.60	814	Call	TZ-40	Call
6F5G	Call	12AX7 (Telefunken smooth plate)	Call	224	7.20	830B	Call	UXCV11	Call
6F6G	10.90	15	10.50	226	11.20	866A	Call	V199	43.60
6F6GT	Call	20LF6	Call	227	11.40	866JR	Call	V201A	Call
6HF5	6.60	21JS6A/23JS6	Call	232	12.10	872-A	28.60	X199	34.70
6J5G	9.40	24A (ST)	5.60	235/251	Call	950 (ST)	Call	X200A	Call
6JB6A	12.50	25L6G	4.20	236	Call	5691 (red base)	26.30	X201A/301A	Call
6JE6C/6LQ6	23.80	26 (ST)	8.50	237	Call	5692 (black/brown base)	20.30		
6JG6A	Call	27 (ST)	3.30	238	Call	5692 (red base)	Call		
6JS6C	23.20	30	7.70	239/244	Call	5881/6L6WGB	17.90		
6JT6A	Call	41 (ST)	5.40	245	80.40	5932/6L6WGB	14.90		
6KD6	19.40	42 (globe)	Call	246	Call	5933/807W	Call		

"TYPE S" SOCKET ADAPTER PLATE

When hole in chassis is too large to mount Type S sockets directly to chassis with wavy washer, this adapter can be used. 1 $\frac{3}{16}$ " dia. opening in plate, 1 $\frac{1}{2}$ " to about 1 $\frac{5}{8}$ " mounting centers can be used. Socket is secured to plate with wavy washer.



Wavy washer for above

P-SH12-1-31	\$1.50
P-SH2-104-2	\$0.50

TUBE SHIELDS

bayonet style with spring

7 pin, 1 $\frac{3}{8}$ " tall, steel, NOS	P-SS7-157	\$1.00
7 pin, 1 $\frac{3}{8}$ " tall, steel, NOS	P-SS7-158	\$1.00
7 pin, 2 $\frac{1}{4}$ " tall, steel, NOS	P-SS7-194	\$1.25
7 pin, 1 $\frac{7}{8}$ " tall w/base, alum, China	P-SS7-160	\$1.50
9 pin, 1 $\frac{1}{2}$ " tall, steel, NOS (Eby)	P-SS9-161	\$2.25
9 pin, 1 $\frac{1}{2}$ " tall w/base, steel, China	P-SS9-162	\$2.25
9 pin, 1 $\frac{7}{8}$ " tall w/base, steel, China	P-SS9-163	\$2.25
9 pin, 1 $\frac{7}{8}$ " tall w/base, alum, China	P-SS9-325	\$2.25

other types (nos) (while supplies last!)

7 pin, 1 $\frac{1}{8}$ " tall, push-on	P-SS7-173	\$1.00
9 pin short, heat dissipating shield	P-SS9-164	\$1.50

9 pin 1 $\frac{7}{8}$ " tall, bayonet style with spring, interior is ribbed to dissipate heat. Flexible metal strip to provide contact with and base is included. Very high quality.

P-SS9-165

\$3.50

MILLEN CERAMIC OCTAL SOCKET

Military grade octal socket. Ceramic skirt for long leakage path to chassis, 5,700 VDC rating. Silver plated phosphor bronze contacts. With nickel plated steel mounting saddle. 1 $\frac{1}{8}$ " hole.

P-ST8-33008

\$11.95

SVETLANA SOCKETS

OUR PART NO.

P-ST-SK1A

P-ST8-SK2A

SVETLANA PART NO.

SK1A

SK2A

TUBE NO.

4CX 800A-SV

4CX 250B-SV

PRICE

\$65.00

\$10.95

GRID/PLATE CAPS



Ceramic	1 $\frac{1}{4}$ "	(6K7)	P-SG116	\$6.50
Plastic w/lead	2 $\frac{3}{64}$ "	(807)	P-SG118	\$5.95
Ceramic	3 $\frac{3}{8}$ "	(807)	P-SG110	\$2.50
Ceramic	7 $\frac{1}{16}$ "	(807)	P-SG111	\$2.75
Ceramic	9 $\frac{1}{16}$ "	(811/572B)	P-SG115	\$2.95

OCTAL RELAY SOCKET

Great for experimenting! Use anywhere you would use a normal octal tube socket, but use screw terminal strips to attach wiring. No need to mount socket and solder leads.

P-ST8-108S \$9.95



TUNING EYE ADAPTER

6 pin plug-in adapter allows hard to find 6U5 or similar tuning eye tubes to be replaced with 1629 tubes.

P-SA314

\$17.50

7591 TUBE ADAPTER

Replace expensive and hard to find 7591 tubes with less expensive 6GM5 tubes. 1 $\frac{1}{4}$ " dia. x 1" tall. Overall height with tube is about 1 $\frac{1}{4}$ " taller than 7591 tube alone.

P-SA317

\$15.95

OCTAL TUBE BASE

Used for octal plug or coil form. 1 $\frac{1}{4}$ " dia. x 1 $\frac{3}{16}$ " high.

P-SP8-476

\$2.75



4-PIN TUBE BASE

Used for 4-pin plug or coil form. 1 $\frac{1}{8}$ " dia. x 1 $\frac{1}{16}$ " high.

P-SP4-477

\$2.75



SVETLANA CONNECTOR CLIPS

The Svetlana AC line of connector clips are suitable for connection to the anode and/or grid cap of the tube. Each is a silver-plated spring clip. The user should select appropriate hardware to mate with wire or copper straps depending on the application.

CLIP	APPX. DIA.	PART NO.	PRICE
AC-1	0.565"	P-SAC-1	\$2.95
AC-2	0.815"	P-SAC-2	\$5.95
AC-3	0.875"	P-SAC-3	\$11.00
AC-4	0.453"	P-SAC-4	\$2.95
AC-5	0.570"	P-SAC-5	\$5.95

TUBE BOXES

Heavy plain white boxes with dividers to cushion tube. Save 15% by purchasing 100 of any one type, save even more by the case.

Minimum order - 10 of any one size.

PART NO.	BOX SIZE	LBS/		PER		CASE	
		100	EACH	100		QTY	PRICE
S-B247	1" x 1" x 3" (Miniature)	1.0	\$0.15	\$12.75		1500	\$168.75
S-B254	1" x 1" x 3 $\frac{1}{4}$ " (Miniature)	1.0	\$0.20	\$17.00		1500	\$225.00
S-B248	1 $\frac{5}{16}$ " x 1 $\frac{5}{16}$ " x 3 $\frac{1}{16}$ " (GT)	1.5	\$0.19	\$16.15		750	\$107.00
S-B249	1 $\frac{5}{8}$ " x 1 $\frac{5}{8}$ " x 4 $\frac{15}{16}$ " (Large GT)	3.0	\$0.28	\$23.80		650	\$136.50
S-B251	1 $\frac{7}{8}$ " x 1 $\frac{7}{8}$ " x 5 $\frac{3}{8}$ "	4.0	\$0.30	\$25.50		800	\$180.00
S-B252	2 $\frac{1}{4}$ " x 2 $\frac{1}{4}$ " x 6 $\frac{1}{8}$ "	5.5	\$0.33	\$28.05		500	\$123.75
S-B253	3" x 3" x 7"	7.0	\$0.42	\$35.70		300	\$94.50

Heavy plain boxes with no divider for larger industrial and transmitting tubes.

S-B120	3" x 3" x 10"	\$0.65 ea.
S-B121	3" x 3" x 5"	\$0.55 ea.
S-B122	4" x 4" x 4"	\$0.60 ea.

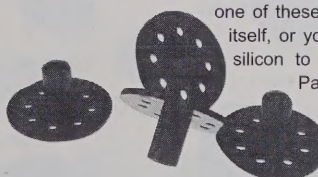
TUBE EGG CRATE

15" x 15" egg crate packing boxes designed for storing tubes. Supplied unassembled.

TUBE TYPE	# CELLS/SIZE	PRICE
S-B123 7 & 9 miniature	289 - 7 $\frac{1}{8}$ " x 1 $\frac{3}{4}$ "h	\$7.36
S-B124 GT, Metal	121 - 1 $\frac{5}{16}$ " x 2 $\frac{3}{4}$ "h	\$8.65
S-B125 Small ST	81 - 1 $\frac{1}{2}$ " x 3"h	\$7.40
S-B126 Large ST	64 - 1 $\frac{13}{16}$ " x 3 $\frac{3}{4}$ "h	\$6.30
S-B127 Carton for above, 15" x 15" x 4"		\$4.50
S-B128 Carton for above, 15" x 15" x 5"		\$4.50

OCTAL TUBE KEYWAY REPLACEMENT

Do you have valuable octal type tubes that work fine except the keyway has been broken off the base? Fix it with this simple and inexpensive product. Simply clean the remainder of the broken keyway from the base and slip one of these on. Will stay on by itself, or you can use a dab of silicon to attach if you wish. Package of 4 keyway replacements.



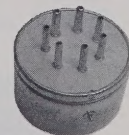
P-STKY-1 \$8.00

TUBE BASE - 813 SIZE

Military surplus 813 tube bases. Use your damaged 813 tubes. In military packaging.

P-SB7-7609

\$5.00



ADAPTER - 9 PIN MINIATURE

Plugs into any 9 pin miniature socket. Attach test leads or solder leads to adapter. Use to check voltages for tubes or as a removable test port.



P-SA9-001

\$0.50

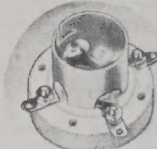
Listed are sockets we normally stock. All are New Old Stock (NOS), unless indicated. Because most of our sockets are surplus and have been in storage for years, some types may show minor signs of corrosion and dirt buildup. All sockets are unused. We may run out of certain types. The figures show the general design and style of the socket type, but due to the many variations of sockets produced by different manufacturers over the years, sockets of the same part number may vary some. If you have a specific requirement for your socket, please state this need on your order.



P-ST7-310
P-ST7-813



P-ST4-191
P-ST5-216
P-ST6-165
P-ST7-309
P-ST7-311



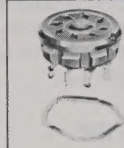
P-ST4-192
P-ST4-193
P-ST4-312



P-ST7-307



P-ST6-166



P-ST5-181
P-ST6-207MX

P-ST6-207M



P-ST4-205M
P-ST4-205MX



P-ST7-201MX



P-ST7-204



P-ST7-156
P-ST7-157



P-ST7-201MXB



P-ST7-204B



P-ST7-814



P-ST7-150
P-ST7-151
P-ST7-202



P-ST7-205L



P-ST7-205



P-ST7-153



P-ST7-195



P-ST7-158
P-ST9-161



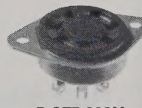
P-ST7-194



P-ST7-201
P-ST7-206



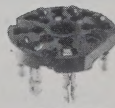
P-ST7-159



P-ST7-208M



P-ST7-198



P-ST7-218



P-ST8-185



P-ST8-324



P-ST7-815

Socket Type	Insulator Material	Top Bot. Mnt.	Mounting Centers(*)	Chassis Hole Dia. (*)	Notes	Part No.	Price
4 pin - 300B/811 size							
bayonet, China	C	t	2		10	P-ST4-312	\$4.50
plate, China	C	b	1 ¹³ / ₁₆			P-ST4-191	\$4.50
saddle - mip	P	t,b	1 ¹ / ₂	1 ³ / ₁₆		P-ST4-205M	\$5.45
saddle - mip	M	t,b	1 ¹ / ₂	1 ³ / ₁₆		P-ST4-205MX	\$5.00
4 pin - 211/845 size							
bayonet, China	C	t	2 ⁷ / ₈	-		P-ST4-192	\$7.95
bayonet, China	C	t	2 ⁷ / ₈	-	1	P-ST4-193	\$12.50
5 pin - 24/27 size							
plate, China	C	b	1 ¹³ / ₁₆			P-ST5-216	\$3.95
type S	P	t,b		1 ³ / ₁₆	4	P-ST5-181	\$3.95
6 pin - 41/42 size							
plate	C		1 ³ / ₁₆		10, 17, solder lugs	P-ST6-165	\$5.50
plate	C	b	1 ³ / ₁₆		10, wire wrap lugs	P-ST6-166	\$5.00
type S	P	b,t		1 ³ / ₁₆		P-ST6-207MX	\$5.00
saddle - plate	P	b	1 ¹ / ₂ to 1 ³ / ₄	1 ³ / ₁₆		P-ST6-207M	\$5.25
7 pin - 6A7 size							
plate - U.S. NOS	C	b	1 ¹³ / ₁₆		10	P-ST7-309	\$5.00
saddle - plate	C	b	1 ¹³ / ₁₆	1 ³ / ₁₆		P-ST7-307	\$3.50
saddle - mip	B	b	1 ¹ / ₂	1 ³ / ₃₂		P-ST7-208M	\$4.00
7 pin - 6C33CB size							
plate, China	C	b	1 ¹ / ₈ x 1 ¹ / ₈		10	P-ST7-310	\$4.25
7 pin - 813 size							
plate, China	C	b	1 ¹ / ₈ x 1 ¹ / ₈		10	P-ST7-813	\$4.25
7 pin - 1625 size							
plate, China	C	b	1 ¹³ / ₁₆		10	P-ST7-311	\$4.25
7 pin miniature - 12AJ6/12AU6 size							
saddle - plate	C	t	7 ¹ / ₈	5 ¹ / ₈	3	P-ST7-204	\$2.50
saddle - plate	C	b	7 ¹ / ₈	5 ¹ / ₈	3	P-ST7-204B	\$2.50
saddle - plate	M	t	7 ¹ / ₈	5 ¹ / ₈	3	P-ST7-201MX	\$1.00
saddle - plate	M	b	7 ¹ / ₈	5 ¹ / ₈	3	P-ST7-201MXB	\$1.00
saddle - plate	P	b	7 ¹ / ₈	5 ¹ / ₈	2,3, no lugs	P-ST7-205	\$0.50
saddle - plate	P	b	7 ¹ / ₈	5 ¹ / ₈	solder lugs	P-ST7-205L	\$1.00
saddle - separate plate, China	C	t(b)	7 ¹ / ₈	5 ¹ / ₈	9,11	P-ST7-814	\$1.50
saddle - shield base	P	t	7 ¹ / ₈	5 ¹ / ₈	17	P-ST7-150	\$1.75
saddle - shield base	M	t	7 ¹ / ₈	5 ¹ / ₈		P-ST7-151	\$0.50
saddle - shield base	C	t	7 ¹ / ₈	5 ¹ / ₈		P-ST7-202	\$2.00
saddle - press shield base	P or M	t	7 ¹ / ₈	5 ¹ / ₈		P-ST7-153	\$1.00
saddle - tele. shield	M	t	1	3 ¹ / ₄		P-ST7-156	\$0.75
saddle - tele. shield	B	t	1	3 ¹ / ₄		P-ST7-157	\$0.75
braise - tele. shield	P	t	-	23 ¹ / ₃₂	8	P-ST7-158	\$0.75
wafer	P	b	1			P-ST7-201	\$1.00
wafer	P	b	1 ¹³ / ₁₆			P-ST7-206	\$0.75
pc - half shield, press tails	P	t	-	.687 pin dia.	5	P-ST7-159	\$0.50
pc - press tails	P	t	-	3 ¹ / ₄ tail dia.	3,5	P-ST7-194	\$0.50
pc - stand-off	P	t	-	3 ¹ / ₄ tail dia.		P-ST7-195	\$1.00
pc - stand-off, white	P	t	-	3 ¹ / ₄ tail dia.		P-ST7-198	\$0.50
pc - snap in	P	t	-	-		P-ST7-815	\$0.50
pc	P	t	-	.707 pin dia.		P-ST7-218	\$0.50
8 pin - Octal Size							
saddle - molded	P	b	1 ¹ / ₁₆	1 ¹ / ₁₆	17	P-ST8-324	\$2.00
molded	P	t	-	1.062	7, keyed hole	P-ST8-185	\$2.50

SOCKET NOTES

- 1) Gold plated contacts.
- 2) Most have 4 tie lugs on saddle. If you specifically desire to have or not have tie lugs on saddle, please specify this on your order.
- 3) Most have a center shield.
- 4) Mounts to chassis with wavy washer, or with adapter plate P-SH12-1-31 (sold separately), using the wavy washer to attach the socket to the adapter plate.
- 5) Press in contact tails provide mechanical retention prior to soldering to PC board.
- 6) Socket rests on shoulder of contact tail, providing an air

gap for cooling. For 1¹/₁₆" circuit boards with bottom circuitry.

- 7) Mounting hardware not available.
- 8) As far as we can tell, these sockets are designed to be pressed into the chassis and braised. Buy a few and try!
- 9) Mounting ring provided allows socket to be mounted from the top or the bottom of the chassis.
- 10) Bossed mounting holes and recessed rivets allows sub-panel mounting.
- 11) Separate mounting ring is designed for top mounting but could be used for bottom mounting in thin gauge chassis (< 0.06" thick).

Socket Type	Insulator Material	Top Bot. Mnt.	Mounting Centers(*)	Chassis Hole Dia. (*)	Notes	Part No.	Price
8 pin octal - EL34/6SL7 size							
mip	P	b	1½	1⅞		P-ST8-485	\$5.25
saddle - plate, nos	C	b	1½ to 1⅞	1⅞		P-ST8-33008	\$11.95
saddle - plate, black	P	b	1½	1⅞		P-ST8-209M	\$3.50
saddle - plate, black	P	b	1½	1⅞		P-ST8-483	\$2.95
saddle - ring mount, China	C	t,b	1⅞	1⅞ to 1¼	9, 12	P-ST8-800	\$2.95
saddle - ring mount, China	C	t,b	1⅞	1⅞ to 1¼	9, 12	P-ST8-801	\$2.75
saddle	P	b	1¼	1	17	P-ST8-808	\$3.50
type S	P	t		1⅞	4	P-ST8-311	\$2.50
type S	M	t		1⅞	4	P-ST8-318	\$2.75
all molded	P	b	1⅞	1⅞		P-ST8-482	\$1.00
wafer	P	b	1½		oval	P-ST8-127	\$1.00
wafer	P	b	1½		rectangular	P-ST8-128	\$1.25
wafer	P	b	1⅞			P-ST8-209W	\$1.00
pc - wafer	P	t		1⅞ pin circle		P-ST8-814	\$0.50
pc - stand-off, China	C	t	1	1 tail dia.	6	P-ST8-193	\$2.95
pc - mount	P	b		1⅞ tail		P-ST8-815	\$3.50
9 pin magnoval - EL509/6KG6A size							
all molded	C	t,b	1⅞ - 1⅞	⅞ t, 1¼ b		P-ST9-509	\$5.25
9 pin miniature - 12AX7/12BH7 size							
saddle - plate	P	b	1⅞	¾	17, no solder lugs	P-ST9-211M	\$2.95
saddle - plate	P	b	1⅞	¾	solder lugs	P-ST9-211ML	\$2.75
saddle - plate	M	b	1⅞	¾	17	P-ST9-137	\$2.95
saddle - plate	P	b	1⅞	¾		P-ST9-137B	\$2.50
saddle - shield base, China	P	t	1⅞	¾		P-ST9-213	\$3.50
saddle - molded	M	t,b	⅞ or 1	¾	13	P-ST9-265	\$1.00
saddle - shock mount	M	b	1	¾		P-ST9-137R	\$2.25
saddle - China	C	t(b)	1⅞	⅞	9, 11	P-ST9-511	\$2.50
wafer	P	b	1⅞		rectangular	P-ST9-149	\$0.75
wafer	P	b	1⅞		oval	P-ST9-150	\$0.75
pc - stand-off, China, white	C	t	-	1⅞ tail dia.	6	P-ST9-214	\$2.00
pc - stand-off, China, white	P	t	-	¾ tail dia.	6	P-ST9-215	\$3.25
pc - stand-off	P	t	-	⅞ tail dia.	6	P-ST9-215B	\$2.95
pc - stand-off	P	t	-	1⅞ tail dia.	6	P-ST9-216	\$2.00
pc mount - split tail	P	t	-	.781 tail dia.		P-ST9-218	\$1.50
pc mount wafer - split tail	P	t	-	.781 tail dia.		P-ST9-217	\$1.50
pc - snap in	M	t			14	P-ST9-521	\$0.50
pc - snap in	P	t			15	P-ST9-520	\$0.50
pc - snap in	M	t			14	P-ST9-522	\$0.50
molded - 90° stand-off, white	P	-	1½	-	17	P-ST9-264	\$0.75
braise - tele. shield	M	t	-	¾	8	P-ST9-161	\$0.50
9 pin compactron - 6KV6/6JE6 size							
saddle - plate	P	b	1⅞	1		P-ST9-254M	\$3.25
pc - stand-off	P	t		1⅞ tail dia.	6	P-ST9-215-1	\$2.00
12 pin compactron - 6LF6/20LF6 size							
saddle	M	b	1⅞	1		P-ST12-295M	\$3.25
all molded, black	P	t,b	1⅞	1⅞	6	P-ST12-296M	\$2.75
pc - stand-off, red	P	t	-	⅞ tail dia.	while supplies last	P-ST12-113-C	\$2.95
pc - stand-off, black	P	t	-	1⅞ tail dia.	6	P-ST12-114	\$2.00
pc - press tails	P	t	-	1.063 tail dia.	5	P-ST12-176	\$1.00
Nuvistor Sockets							
pc, 5 pin	M	t	½" tabs	-		P-STN-472	\$2.70
ring type, 5 pin	M	t	-	-	7	P-ST5-473	\$2.95
ring type, 7 pin	P	t	-	-	7, shield collar	P-ST7-474	\$3.00

INSULATOR MATERIALS: C = ceramic, M = mica, P = phenolic.

- P-ST8-800 and P-ST8-801 are identical except for contact style. P-ST8-800 has split circular contacts, while P-ST8-801 has split straight contacts.
- Unique molded saddle allows for off center mounting of socket. Socket can be mounted closer to edge of chassis or other components.
- Top or bottom soldering.
- Bottom soldering only.
- Mounting holes not bossed, nor are rivets recessed, mount with stand-offs.
- While supplies last.

CRYSTAL HOLDER SOCKETS

Red plastic, for crystal holders having ½" centers. Easily mounted. May be used as dual tip jacks on test panels. Pkg of 4.
P-SX-125 \$2.00

TRANSISTOR SOCKETS

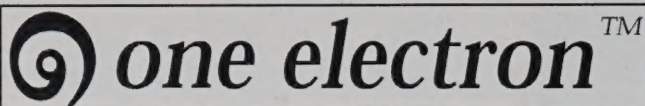
3 Lead, in-line
P-STR-001 \$0.50



4 Lead, in-line
P-STR-002 \$0.50

3 Lead, mica filled
P-STR-003 \$1.00

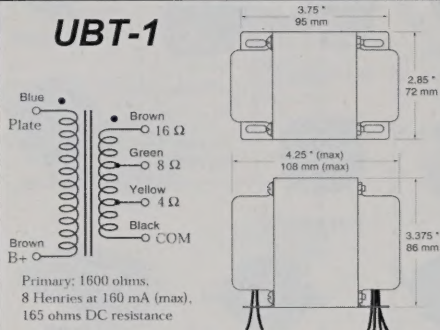




SINGLE ENDED OUTPUT & POWER TRANSFORMERS

ALL DESIGNS BY JOHN ATWOOD. MANUFACTURED IN THE UNITED STATES.
FOR COMPLETE SPECIFICATIONS - VISIT www.one-electron.com/trans.html

UBT-1

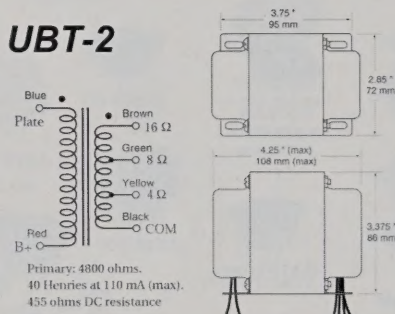


The UBT-1 is a low-impedance single-ended output transformer intended for parallel combinations of tubes running at B+ voltages of 250 to 325 volts, such as: two or three EL34s (triode-connected), three 2A3s, two 300Bs, two 6AS7s, etc., as well as single sweep tubes run in "enhanced-triode" mode, resulting in 10 to 15 watts of output power. The UBT-1's low impedance gives an exceptionally broad frequency range of 10Hz to over 75KHz (at 1 watt). This transformer has been the basis for excellent-sounding single-ended amps, and is notable for its clean, detailed sound. **Quantity discounts available. 6.1 lbs.**

P-TUBT-1

\$99.00

UBT-2

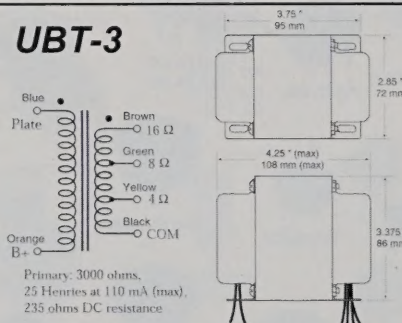


The UBT-2 is the same size and power (15 watts) as the UBT-1, but has a higher primary impedance suitable for single tubes running at B+ voltages of 400 to 500 volts, such as: 50, WE 300B, Svetlana SV811-3, SV-572-3, etc. The trade-off of a higher impedance transformer is worse bandwidth, but additional interleaving was added in the UBT-2 to extend the frequency range from 10Hz to over 55KHz (at 1 watt). The UBT-2 has also been successfully used as a choke load for shunt-feed output stages. Plate supply voltages over 600 volts are not recommended. **Quantity discounts available. 6.0 lbs.**

P-TUBT-2

\$119.00

UBT-3

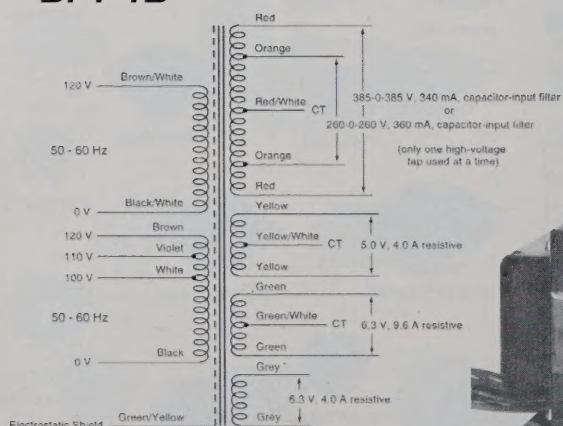


The UBT-3 is the same size and power (15 watts) as the UBT-1, but has a primary impedance suitable for single or paralleled tubes running at B+ voltages of 300 to 400 volts, such as: 2A3, WE 300B, 50, etc. The frequency response is from 10Hz to over 60KHz (at 1 watt). The 3K primary impedance offers lower distortion at only slightly less power in designs using the commonly-specified 2.5K transformers. **Quantity discounts available. 6.1 lbs.**

P-TUBT-3

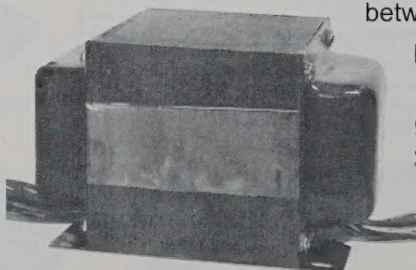
\$119.00

BFT-1B



The BFT-1B was designed to power a stereo amplifier using UBT-1s in each channel but will also power an 80 watt push-pull tube amplifier. The BFT-1B is slightly larger than earlier versions of the BFT-1, allowing lower flux density and cooler operation. The tapped high-voltage windings and three filament windings provide flexibility in design. An electrostatic shield

between the primaries and secondaries reduces power-line noise coupling. The primary arrangements allows use on virtually any power grid in the world. Overall dimensions: 4.5" x 3.75" x 5.875" (11.4 x 9.5 x 14.9 cm). **Quantity discounts available. 16 lbs.**

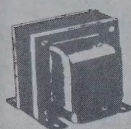


P-TBFT-1B

\$169.00

POWER TRANSFORMERS

Replacements for 1930 to 1950 AC radios and tube type equipment. 117 Volt primary, 50/60 Hz. Provided with color-coded leads.

**Vertical****Horizontal**

PART NO.	MFG.	RATING		MOUNTING CENTERS		LBS.	PRICE
P-T263AX	HAMMOND	100-0-100V, 100MA	5V, 2A	2.5" x 1.57" vert.		1.5	\$34.15
P-T442	AES	125V, 15MA		2", U-bracket		0.7	\$19.95
P-T269AX	HAMMOND	125-0-125V, 100MA		1.56" x 1.5", vert.		1.7	\$33.45
P-T261M6*	HAMMOND	215V, 269MA		3" x 2.8125", vert.		4.0	\$56.12
P-T270CAX	HAMMOND	250-0-250V, 70MA	5V, 2A	2" x 2.0625", vert.		3.3	\$41.98
P-T270CBX	HAMMOND	250-0-250V, 100MA	5V, 2A	2" x 2.0625", vert.		3.5	\$63.00
P-T270DAZ	HAMMOND	260-0-260V, 90 MA		2.25" x 2.875", horiz.		3.5	\$41.40
P-T270DAX	HAMMOND	260-0-260V, 90 MA		2" x 2.125", vert.		3.7	\$40.50
P-T270BX	HAMMOND	275-0-275V, 50MA	5V, 2A	1.69" x 2", vert.		3.3	\$37.53
P-T270DX	HAMMOND	275-0-275, 90MA	5V, 2A	1.94" x 2" vert.		3.3	\$42.05
P-T272BX	HAMMOND	300-0-300V, 100MA	5V, 2A	2.19" x 2", vert.		3.5	\$44.00
P-T272FX	HAMMOND	300-0-300V, 150MA	5VCT, 3A	2.19" x 2.5", vert.		5.0	\$56.42
P-T272JX	HAMMOND	300-0-300V, 250MA	5VCT, 4A	2.81" x 3", vert.		7.6	\$67.63
P-T24R01**	THORDARSON	325-0-325V, 40MA	5V, 2A	2" x 2.5", horiz.		2.6	\$49.88
P-T273AZ	HAMMOND	325-0-325V, 40MA	5V, 3A	2" x 2", horiz.		5.8	\$45.66
P-T273CZ	HAMMOND	325-0-325V, 150MA	5V, 3A	2.5" x 2.5", vert.		5.8	\$70.94
P-T273DZ	HAMMOND	350-0-350V, 90MA	5V, 2A	2.25" x 2.8125", horiz.		4.9	\$58.58
P-T273DX	HAMMOND	350-0-350V, 90MA	5V, 2A	2.25" x 2.375", vert.		4.1	\$58.58
P-T274AX	HAMMOND	360-0-360V, 120MA	5V, 3A	2.5" x 2.44", vert.		5.4	\$54.00
P-T443**	SURPLUS	370-0-370V, 60MA		2" x 2.5", horiz.		2.8	\$22.50
P-T274BX	HAMMOND	375-0-375V, 175MA	5VCT, 3A	2.69" x 2.5", vert.		6.1	\$62.62
P-T278X	HAMMOND	400-0-400V, 200MA	5VCT, 3A	2.69" x 2.5", vert.		7.0	\$78.50
P-T278CX	HAMMOND	400-0-400V, 465MA		3.81" x 3", vert.		12.5	\$83.73
P-T279X	HAMMOND	425-0-425V, 150MA	5VCT, 3A	2.69" x 2.5", vert.		6.0	\$71.39
P-T282X	HAMMOND	500-0-500V, 200MA	5VCT, 3A	3.31" x 3", vert.		9.6	\$85.45

* For European radios

** While supplies last

HAMMOND MANUFACTURING™

All STOCKED Hammond Transformers & Chokes Are Priced 10% Below Hammond's Retail Price!

NOTE: It is important that every receiver be carefully checked before a burned out transformer is replaced. Too often, some other defect, such as a defective tube, electrolytic condenser, or a partial circuit short has caused the original burnout and the replacement transformer is also ruined before the real cause is found and remedied!!!

Picks up where the 200 series leaves off! High quality, high voltage! "World power", with primary voltages of 100, 110, 120, 200, 220, 240 V @50/60 Hz. All have a secondary bias tap at 50 VAC. Concentric wound for low stray field and low noise. Hipot tested to 2500 VAC. Epoxy painted to match 1650 series output transformers. The P-T300BX is designed specifically for 300B's, the P-T302AX is designed specifically for 2A3's.

CLASSIC 300 SERIES POWER TRANSFORMERS

PART NO.	VA	RATING		MOUNTING CENTERS(")		LBS.	PRICE
P-T369AX	40	250VCT, 100MA	6.3VCT, 2A	1.6875" x 2", vert.		2.6	\$49.09
P-T363CX	119	360VCT, 250MA	5VCT, 3A	2.4375" x 2.5", vert.		5.6	\$73.63
P-T370BX	55	550VCT, 50MA	5VCT, 2A 6.3VCT, 2A	1.9375" x 2", vert.		3.1	\$55.22
P-T372BX	98	600VCT, 100MA	5VCT, 2A 6.3VCT, 3A	2.1875" x 2.5", vert.		4.8	\$65.05
P-T372FX	150	600VCT, 150MA	5VCT, 3A 6.3VCT, 5A	2.5" x 2.9375", vert.		6.2	\$83.45
P-T302AX	198	600VCT, 200MA	2.5VCT, 2.5A 5VCT, 3A 6.3VCT, 6A	2.8125" x 3", vert.		8.0	\$98.18
P-T372JX	243	600VCT, 250MA	5VCT, 4A 6.3VCT, 8A	3" x 3.3125", vert.		9.8	\$100.63
P-T374BX	200	750VCT, 175MA	5VCT, 3A 6.3VCT, 6A	2.8125" x 3", vert.		7.9	\$92.04
P-T378X	237	800VCT, 200MA	5VCT, 3A 6.3VCT, 6A	3" x 3.0625", vert.		8.9	\$116.60
P-T300BX	280	800VCT, 250MA	5VCT, 1.2A 5VCT, 3A 6.3VCT, 6A	3" x 3.8125", vert.		12.0	\$122.72
P-T378CX	465	800VCT, 465MA	6.3VCT, 6A	3.5" x 3.5625", vert.		17.6	\$125.18

HAMMOND CLASSIC

Tube Transformers

Hammond offers both single-ended and push-pull audiophile tube output transformers in their 1600 series. All specifications shown are a **full rated power**. All include multiple interleaved windings to maximize high frequency response and all include Ultra-Linear taps at the 40% point. High grade laminations (M6) and high quality copper wire are used. The core is varnished and oven baked to ensure quiet operation even at high ambient temperature. Hammond achieves a classic look to complement any amplifier design by finishing the end bells with tough, low gloss, black powder paint finish to resist scratching. End bells include knockouts for optional above chassis wiring. From 3 to 280 watts, Hammond has the output transformer for you.

Don't see what you need? Give us a call and we'll get a Hammond Classic catalog out to you. We can special order any Hammond product. Special order pricing can be found on Hammond's web site: www.hammondmfg.com.

1600 SERIES PUSH-PULL TRANSFORMERS

Enclosed (shielded), 4 slot, above chassis Type "X" mounting. Frequency response 30 Hz to 30 kHz at full rated power (+/- 1 db max. ref. 1 kHz) minimum. All units have secondary impedance of 4/8/16 ohms. Flexible 8" leads.

PART NO.	WATTS	PRIMARY IMP. (OHMS)	MOUNTING CENTERS(")	LBS.	SUGGESTED TUBE TYPES	PRICE
P-T1608	10	8,000 CT	1.69" x 2", vert.	2.5	6AQ5, 6V6, 6BQ5, EL84	\$36.82
P-T1615	15	5,000 CT	2.19" x 2", vert.	3.3	2A3, 6A3, 6AQ5, 6B4G, 6L6, 6V6	\$41.18
P-T1620	20	6,600 CT	2.44" x 2", vert.	3.5	6AQ5, 6L6, 6V6	\$42.22
P-T1650F	25	7,600CT	2.44" x 2", vert.	4.0	6L6GC, 6V6, 807, 5881, EL34	\$55.22
P-T1645*	30	5,000 CT	2.19" x 2.5", vert.	4.5	6L6GC, 6V6, 807, 5881, EL34	\$55.22
P-T1650G	35	6,600CT	2.5" x 2.25", vert.	4.7	6L6GC, 6V6, 807, 5881, EL34	\$60.14
P-T1650H	40	6,600 CT	2.69" x 2.5", vert.	6.5	6L6GC, 807, 5881, EL34	\$84.58
P-T1650K	50	3,400 CT	2.69" x 2.5", vert.	7.0	6L6GC, 807, 5881, EL34, 6146B, 6550B, 6550C	\$89.14
P-T1650N	60	4,300 CT	2.94" x 2.5", vert.	8.0	6L6GC, 807, 5881, EL34, 6146B, 6550B, 6550C, KT88	\$79.78
P-T1650P	60	6,600 CT	2.94" x 2.5", vert.	8.0	6L6GC, 807, 5881, EL34, 6146B, 6550B, 6550C	\$79.78
P-T1650R	100	5,000 CT	3.06 x 3, vert.	12.0	807, 5881, EL34, 6146B, 6550B, 6550C, KT88	\$82.85
P-T1650T	120	1,900 CT	3.31 x 3, vert.	14.0	6L6GC, 5881, EL34, 6550B, 6550C, KT88	\$96.28
P-T1650W	280	1,900 CT	5.88 x 3.5, vert.	28.0	6L6GC, 5881, EL34, 6550B, 6550C, KT88	\$184.10

*70V secondary winding in addition to the 4/8/16

The examples of possible combinations are to help you narrow down the choices of transformers for your favorite tube type. How you operate the tubes (push-pull, push-pull parallel, ultra-linear, etc.) will change the optimum plate to plate load impedance. A tube manual or technical data sheet should be consulted before choosing an output transformer.

ROTARY IMPEDANCE SELECTOR - FOR USE WITH HAMMOND 1600 SERIES TRANSFORMERS

Hammond 1600 series transformers all provide secondary impedances of 4, 8 or 16 ohms, but due to the unique wiring of the secondary, the impedance cannot be changed without rewiring....Until now. We now offer a selector switch, pre-wired and complete with 1/4" jack output. Follow simple instructions provided to wire transformer secondary to switch, mount switch and 1/4" jack in separate 3/4" diameter holes in chassis and you'll easily be able to select output impedance as needed.

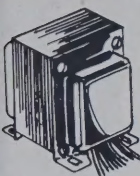
P-H1600

\$14.95

1600 SERIES SINGLE-ENDED TRANSFORMERS

Enclosed (shielded), 4 slot, above chassis Type "X" mounting. Frequency response at least 20 Hz to 20 kHz at full rated power (+/- 1 db max. ref. 1 kHz) minimum. All units have mount centers = 3.81 x 3, and secondary impedance of 4/8/16 ohms. Flexible 8" leads. Each weighs 11 pounds.

PART NO.	WATTS	PRIMARY IMP. (OHMS)	MAX DC BIAS	SUGGESTED TRIODES	SUGGESTED PENTODES	PRICE
P-T1627SE	25	2,500	160ma	2A3, 6A3, 6B4G, 300B	6CA7, 6L6, 807, 5881, 6550 Parallel 6AQ5, 6V6, EL84	\$97.52
P-T1628SE	25	5,000	120ma	SV572-3, SV572-10, 211, 300B	6AQ5, 6V6, 6L6, 807, 5881, 6550, EL84	\$97.52
P-T1629SE	25	6,500	100ma	811A, SV811-10, 572B, SV572-30 & 160		\$97.52
P-T1640SE	25	1,250	200ma	Parallel 2A3, 6A3, 6B4G, 300B	Parallel 6550, 6CA7	\$97.52

SPECIAL POWER TRANSFORMERS WITH 2.5V FIL. WINDINGS (120V. 60HZ PRI.)


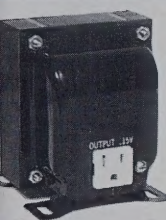
These transformers have been custom manufactured to provide the replacement needs for early 30's radios. No. P-T142 will work in most 4 and 5 tube sets while No. P-T143 will work in most 6 and 7 tube sets. Supplied with vertical mounting shells, both have the leads coming out one side so that horizontal mounting may be used (see note). P-T143 provides a separate filament winding for audio output stages but both 2.5V windings can be paralleled for the combined current rating.

PART NO.	RATING				MOUNTING CENTERS(")	LBS.	PRICE
P-T142**	325-0-325V, 50MA	5V, 2A	2.5VCT, 7.5A		2" x 2.25" (2" x 2.5")	3.5	\$79.00
P-T143	350-0-350V, 70 - 90MA*	5V, 3A	2.5V, 7.5A	2.5VCT, 3.5A	2.3125" x 2.5" (2.25" x 3.125")	4.6	\$79.00

*Will provide 90MA if 5V winding is used with 2A rectifier.

**While supplies last

Note: Feet for vertical mounting can be cut off to enable horizontal mounting. Mounting Centers in parentheses () apply to horizontal mounting.

LINE ISOLATION TRANSFORMERS


171A/B

PART NO.	MFG.	VA RATING	MOUNTING CENTERS(")	LBS.	PRICE
P-TN-51X	TRIAD	35	3.125, U-bracket	2.0	\$18.95
P-T169SS	HAMMOND	90	2.19" x 2", vert.	4.5	\$36.82
P-T169VS	HAMMOND	175	2.69" x 2.5", vert.	7.0	\$42.96
P-T171A	HAMMOND	100	1.88" x 3"	6.5	\$61.44
P-T171B	HAMMOND	200	2.38" x 3"	8.1	\$74.30

115 volt primary, 60 Hz., 115 volt secondary, must be hard wired.

115 volt primary, 50/60Hz., 115 volt secondary, vertical mounting with single outlet receptacle on case. With line cord.

I.F. TRANSFORMERS

NOS I.F. transformers in 3/4" square cans. **While supply lasts.**

10.7 mHz, two #6-32 mounting studs.

P-C214 \$4.95

19 kHz, uses mounting clamp below.

P-C215 \$4.95

10.7 mHz universal pc mount

P-C218 \$4.95

455 kHz pc mount

P-C455 \$9.95


3/4" IF TRANSFORMER MOUNTING CLIP

P-C213 \$1.00

While Supplies Last


I.F. TRANSFORMERS for TRANSISTOR RADIOS

455KC, Red cap - detector

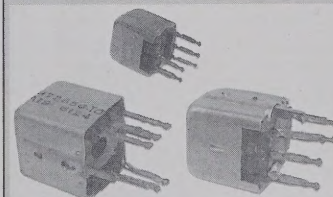
P-C208R \$1.00

455KC, Blue cap - mixer

P-C208B \$1.00

455KC, Yellow cap, Center I.F.

P-C208Y \$1.00



PART NO DESCRIPTION	MAX. PRI. CURRENT	IMPEDANCE-OHMS PRI. TO SEC.	MOUNT. CENTERS(")	LBS.	PRICE
P-T124D Push-Pull plate to push-pull grids. (25 Max DC bias)	40 MA	7,000 to 15,800	2.375	0.7	\$12.52
P-T156 Equiv. to Stancor A53-C. 1:3 ratio overall. Center tapped secondary may be used for push-pull grids.	10 MA	10,000 to 90,000	2	0.4	\$14.95
P-T431 Coil assembly only for above (P-T156). Use your own iron to preserve mechanical fit. Coil window is 1/2" x 1/2".				0.2	\$12.95
P-T124E Multi-purpose, center-tapped primary. Center-tapped secondary providing 1:1.5/1:3/1:6 ratio.	20 MA	15,000 to 135,000	2.5	0.8	\$25.15

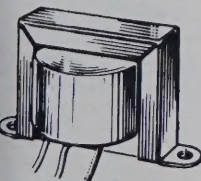
FILAMENT TRANSFORMERS

115 V Primary, 50/60 Hz.

U-bracket mounting.

PART NO.	MFG.	RATING	MOUNTING CENTERS(")	LBS.	PRICE
P-T166M2	HAMMOND	2.5VCT, 3A	2.375	0.8	\$10.90
P-T166Q2	HAMMOND	2.5VCT, 6A	2.8125	1.0	\$16.24
P-T166S2	HAMMOND	2.5VCT, 10A	3.125	1.8	\$17.68
P-T166L5	HAMMOND	5.0VCT, 2A	2.375	0.7	\$14.65
P-TF-7X*	TRIAD	5.0VCT, 3A	2.8125	1.3	\$9.95
P-T166MS	HAMMOND	5.0VCT, 3A	2.8125	1.3	\$10.90
P-T166RS	HAMMOND	5.0VCT, 8A	4.0	2.2	\$18.18
P-T166L6	HAMMOND	6.3VCT, 2A	2.375	0.8	\$14.63
P-T166N6	HAMMOND	6.3VCT, 4A	2.8125	1.1	\$15.50
P-T166S6	HAMMOND	6.3VCT, 10A	3.5625	2.3	\$25.40
P-TF-70X*	TRIAD	12.6VCT, 1A	2.8125	1.0	\$15.95
P-T166N12	HAMMOND	12.6VCT, 4A	3.125	0.8	\$19.07
P-T167L12	HAMMOND	12.8VCT, 2.5A	1.75	1.3	\$20.03

U-Bracket

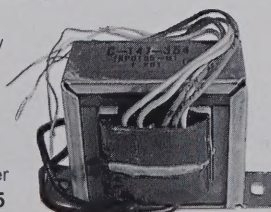


* While Supplies Last

MULTI-TAPPED POWER TRANSFORMER

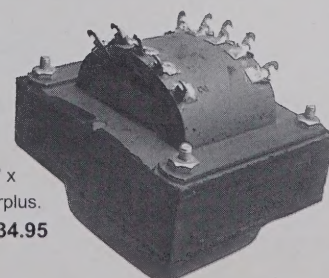
0 V and 18.6 VCT secondaries. Many different voltages available, depending upon the connection you choose. Use two or more for even more flexibility and higher voltage, current or power. With suitable dropping devices, this transformer can power 6.3 or 12.6 tube filaments from the taps, in addition to supplying B+ using the whole secondary. Good for experimental circuits, power supplies, etc.

P-TC-141-354 \$9.95


CREST HALF SHELL POWER TRANSFORMER

Flush mounting transformer fits the physical and electrical requirements of many radios. 115VAC Primary; 700 VCT-70 mA secondary; 5V-3A rectifier winding; 6.3V-3.5A filament winding. 2 1/2" x 3 1/8" mounting centers. New-old-stock surplus.

P-T6415 \$34.95



OTHER TRANSFORMERS

PART NO.	MFG.	POWER	PRIMARY	SECONDARY	FREQUENCY RESPONSE-Hz	MOUNTING CENTERS	WEIGHT	PRICE
P-T31	AES	8 W	5 K ohm single-ended	8 ohm		2.375", u-bracket	0.7 lb.	\$9.95
P-TS142A	AES	15 W	8 K ohm CT push-pull	16/8/4 ohm	70-50,000	2" x 2.4375", vert.	3.4 lb.	\$69.00
P-T125H	HAMMOND	8 W	10 K ohm	2/4/8 ohm		2.375", u-bracket	1.0 lb.	\$15.26
P-T125J	HAMMOND	8 W	4 K and 2500 ohm	6/8/4 ohm		1.75"	0.3 lb.	\$17.27
P-TK15	Surplus	10 mA	1.5 K ohm	1.5K ohm CT	100 - 5K	none	1 oz.	\$1.00
P-TK2	Surplus	6 W	S-E 5 K ohm	8/4 ohm	70-8K	1.75"	4 oz.	\$4.95
P-TTA-59	STANCOR	5 W	500 ohms push-pull	200ohm CT	70-8K	1.75"	10 oz.	\$7.95
P-TRS12-D45	RADIO SHACK	.45A	120 VAC	12.6 VCT - 450MA	Filament	2.0625"	12 oz.	\$7.95
P-TK22	Surplus	5 mA	10K ohm CT	200 ohm CT	200-5K	none	4 oz.	\$1.00
P-TK14	Surplus	5 mA	interstage 2K ohm	100-100 ohm	200-5K	none	3 oz.	\$1.00
P-TK13	Surplus	5 mA	interstage 15K ohm	60-60 ohm	200-5K	none	3 oz.	\$1.00
P-TK17	Surplus	2 W	Audio Output 250 ohm	3.2 ohm	500-3K	.625" PC mount	2 oz.	\$1.00
P-T983	Surplus	3 W	Audio Output 2500 ohm	8 ohm	500-3K	1.5: -U-frame	0.2lb	\$7.95

Hammond Transformer - built in response to requests from the "Collins Collectors Association".

Key features:

Isolation unit: (i.e. separate primary and secondary)

Primary: 600 Ohm (with 6" wire leads)

Secondary: 8 Ohm with 4 Ohm center tap (with solder lugs)

Power: Rated at 12 watts

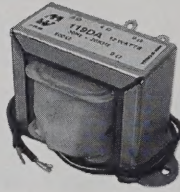
Frequency Response: 30 Hz - 20 kHz

Weight: 1.3 lbs.

Mounting: 2 hole U-bracket mount - on 2.8125" mounting centers

P-T119DA

\$18.35



UNIVERSAL OUTPUT TRANSFORMERS

Multi-tap transformers have tables provided to choose pre-calculated impedance ratios. Secondary impedances from 1.5 to 15 ohms. Leads on primary, solder lugs on secondary. U-bracket mounting. For single or push-pull applications.

PART NO.	MFG.	OUTPUT WATTS	PRIMARY-Z OHMS	MOUNTING CENTERS	LBS.	PRICE
P-T125A	HAMMOND	3	1,200 to 25,000	1.75"	0.3	\$26.88
P-T291	AES	8	4,000 to 10,000	2.375"	0.7	\$15.95
P-T125E	HAMMOND	15	1,200 to 25,000	3.125"	1.5	\$29.80

ROLLER INDUCTOR Offers truly continuous variation in inductance throughout its range. Literally any inductance between 0 and 28 μ H can be achieved, with a practical working resolution of 0.01 μ H. The plated copper busbar wire rests in a precision-machined helical groove cut into a solid cylinder of teflon-deirin polymer. This core rides on 12 carbon steel balls nested in the plate steel frames. The insulators on the rear frame are composed of virtually indestructible glass-based phenolic. Features a corner mounted wheel, coiled extension springs, and a positive wheel stop to prevent the wheel from leaving the coil. Quality built in the United States. 2.5 lbs, 8 1/2" long x 2.5" wide x 3" tall. **While Supplies Last**

P-I001

\$95.00

FILTER CHOKES

PART NO.	MFG.	RATING	MAX. VDC	RESISTANCE (OHMS)	MOUNTING CENTERS(")	LBS.	PRICE
P-T156R	HAMMOND	1.5 Henries 200 mA	400	56	2.375 u-frame	0.7	\$10.20
P-T155H	HAMMOND	5 Henries 50 mA	400	270	2 u-frame	0.4	\$10.23
P-T158Q	HAMMOND	5 Henries 150 mA	400	105	2.8125 u-frame	1.3	\$16.73
P-T193H	HAMMOND	5 Henries 200 mA	600	65	1.6875 x 2 vert.	2.5	\$24.70
P-T193L	HAMMOND	5 Henries 300 mA	800	57	2.4375 x 2.5 vert.	5.5	\$30.58
P-T193D	HAMMOND	8 Henries 150 mA	600	75	2.5 x 2.1875 vert.	3.3	\$29.80
P-T157J	HAMMOND	10 Henries 65 mA	400	205	2.8125 u-frame	1.0	\$18.32
P-TC-7X	TRIAD	10 Henries 90 mA	400	270	2.8125 u-frame	1.4	\$15.95
P-T158M	HAMMOND	10 Henries 100 mA	400	195	2.8125 u-frame	1.3	\$16.52
P-T193G	HAMMOND	10 Henries 150 mA	800	102	1.9375 x 2.5 vert.	4.3	\$43.94
P-T193J	HAMMOND	10 Henries 200 mA	800	82	2.4375 x 2.5 vert.	5.5	\$41.13
P-T193M	HAMMOND	10 Henries 300 mA	800	63	3 x 3.3125 vert.	10.5	\$50.28
P-T193B	HAMMOND	12 Henries 100 mA	600	155	1.6875 x 2 vert.	2.5	\$24.68
P-T158L	HAMMOND	15 Henries 75 mA	400	411	2.8125 u-frame	1.3	\$16.65
P-T193C	HAMMOND	20 Henries 100 mA	600	181	2 x 2.1875 vert.	3.3	\$29.84

**R.F. CHOKES (HAMMOND)**

3 section windings on ferrite forms approx. 1 1/4" long by 3/8" over windings. With axial leads 1 1/2" long.

PART NO.	PRICE
P-C1535B	\$3.40
P-C1535D	\$3.55
P-C1535G	\$3.88

2.5 mH	9 ohms	160 mA
5.0 mH	14 ohms	160 mA
10.0 mH	31 ohms	100 mA

New Old Stock CHOKES



Choke, RF, 1.2mH
P-C206 \$1.00



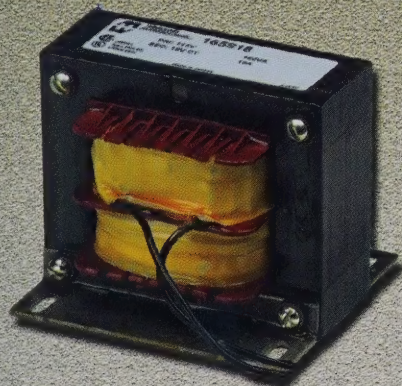
Choke, RF, 550uH
P-C188 \$1.00



Choke, RF molded,
220uH
P-C189 \$1.00



HAMMOND
MANUFACTURING™



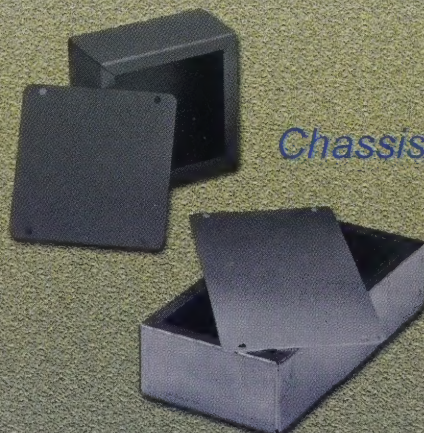
- Tube Output
- High Voltage
- Filament
- Audio Matching
- Filter Chokes
- Isolation
- R.F. Chokes



Classic Transformers & Enclosures



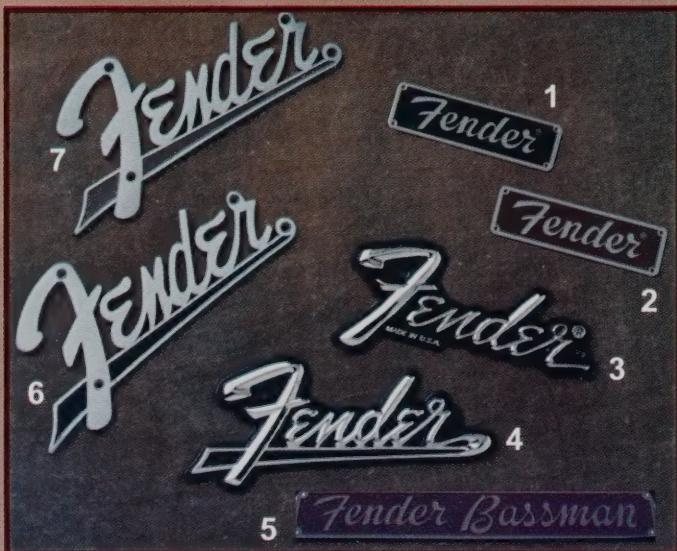
Diecast Aluminum



Chassis

Hammond Mfg. is a world renowned manufacturer of quality transformers and enclosures. Antique Electronic Supply is an authorized stocking distributor. We can supply the full line of Hammond products including special order items not shown in this catalog. Contact us for a complete Hammond catalog.

Fender® Logos & T-Shirts

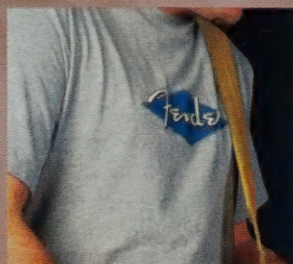


1) Tweed Black Logo	S-M917	\$11.95
2) Tweed Brown Logo	S-M913	\$11.95
3) 70's Small Logo (CBS)	S-M915	\$13.50
4) Logo Flat Black	S-M916	\$17.95
5) Tweed Bassman Logo	S-M914	\$12.95
6) Amplifier Logo Blackface w/Tail	S-M912	\$12.95
7) Amplifier Logo Flat Brown	S-M911	\$15.95

Fender Keychains

Flat Amp Logo	G-839	\$7.50
Tweed Amp Logo	G-840	\$7.50

While Supplies Last



FENDER "STRAT" CIRCLE T-SHIRT

Fender "Strat" logo with large imprint on back. Available in black (shown) white and blue.

Black X-Large	G-832XL	\$13.95
White Large	G-831L	\$13.95
White X-Large	G-831XL	\$13.95
Blue X-Large	G-830XL	\$13.95

While Supplies Last



FENDER DIAMOND T-SHIRT

Front imprint with matching design on sleeve. Available in gray (shown), white and black.

Black Large	G-827L	\$13.95
Black X-Large	G-827XL	\$13.95
Gray Large	G-828L	\$13.95
Gray X-Large	G-828XL	\$13.95
White Large	G-829L	\$13.95
White X-Large	G-829XL	\$13.95
While supplies last		

DUDS TO WEAR

RCA Tube Diagram Shirts



RCA TUBE DIAGRAM T-SHIRT

Ash color T-shirt. Back has cut-out drawing of RCA tube with a diagram of different tube components. Vacuum Tube Valley logo on front.

X-Large Only.

G-835XL

\$18.95



NIPPER SHIRTS

3 Colors, Each Available In Large Or Extra Large



Red

large

G-731L

\$16.95

x-large

G-731XL

\$16.95

White
Large
X-Large

G-730L

\$14.95

G-730XL

\$14.95

Black

large

G-732L

\$16.95

x-large

G-732XL

\$16.95



Also available!... Nipper Sweatshirts! available in white only.

large

G-735L

\$19.95

x-large

G-735XL

\$19.95

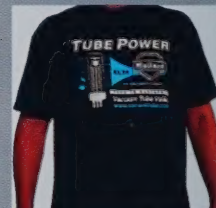


"6L6" T-Shirt

High quality 100% preshrunk cotton. Available in gray with black lettering only.

G-801XL

\$16.95



"EL34" T-Shirt High quality 100% preshrunk cotton, black.

G-802XL \$16.95

Zenith T - Shirt



White with black logo

large

G-816L

\$16.95

x-large

G-816XL

\$16.95

xx-large

G-816XXL

\$17.95



AES "Campy" Hat

G-825

\$8.95 While Supplies Last

ANTIQUE ELECTRONIC SUPPLY

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☐ My address has changed, please update it

Country

Phone () _____ Fax () _____ E-Mail _____

[illegible]

SIGNATURE _____

TOTAL \$ _____

ORDERING INFORMATION

Phone orders are accepted from 8:00 AM to 5:00 PM (MST) Monday through Friday and 9:00 AM to 1:00 PM Saturday. (Saturday hours are subject to change, refer to our website or call for current Saturday hours). We accept MasterCard, Visa, Discover, and American Express. Please give us the name listed on the card, the complete card number and the expiration date, either by phone, fax, e-mail or mail. You may also mail a check or money order with your order. We can ship COD **by UPS only**. There is an additional \$5.50 COD fee for orders shipping UPS COD service. **All orders shipping COD require payment by cashier's check or money order unless payment by check has been arranged with us in advance.** **NOTE: Cash is no longer accepted by UPS on COD as a matter of UPS policy.**

Fax and e-mail orders are accepted at anytime 24 hours a day. Unless specifically requested, these orders will be filled and shipped **without acknowledgment**. Our domestic toll free fax number is (800) 706-6789. Our website address is www.tubesandmore.com. Our e-mail address is info@tubesandmore.com.

Our handling fee is \$2.50 on each order. This handling fee is waived for all **book only** orders of \$20.00 or more. We do our best to accommodate add-ons to orders; however, we charge an additional handling fee for add-ons and cannot guarantee it will be added to the original order. The customer assumes all responsibility for additional shipping charges if the add-on ships separately.

Due to the nature of the types of products we supply, **all prices and availability are subject to change.**

If you have ordered from us before, please identify yourself by your customer code for faster service (all e-mail customers, please provide your personal password along with your customer code).

DOMESTIC ORDERS

We ship continental United States orders by UPS ground service unless otherwise requested. Orders shipping to Hawaii, Alaska, and Puerto Rico can only be sent by mail or by UPS priority service (2nd Day or Next Day). For shipping charges, instructions, and approximate delivery times, please see the chart in the back of the catalog. There is a \$10.00 minimum per order.

For domestic shipments, UPS Next Day Air, 2nd Day Air, 3 Day Select and other types of priority delivery are available upon request. These orders will be shipped the same day they are received **if phoned, faxed or e-mailed by noon (MST).**

INTERNATIONAL ORDERS

We ship international orders by either Air Parcel Post or Surface Parcel Post, unless other services are requested. We ship by Air Mail to Canada unless you specify otherwise at the time of your order. We recommend UPS as our primary carrier for express services. Please specify which mode of shipment you prefer.

Payment must be made in US funds, either by credit card, bank draft or International Money Order. Wire transfers can be accepted for a \$40.00 fee. We cannot ship COD outside the United States. There is a \$25.00 minimum order.

If possible, please provide us with either your phone, fax or e-mail information.

OUT-OF-STOCK ITEMS

While we endeavor to stock what we catalog, we carry many obsolete, hard-to-find and custom manufactured items, and we cannot guarantee availability. If an ordered item is not in stock and we expect to have it again, it will be back ordered and so noted on your invoice unless otherwise requested. It will be invoiced and shipped when it becomes available. Shipping/handling charges will be adjusted so that you are not penalized by the additional cost of making two shipments. If an item is ordered that cannot be back ordered (i.e. most tube stock), or we cannot insure availability, it will be canceled from the order and so noted on the invoice. If an item has -NLA- (no longer available) in the description it means we cannot locate the item and are no longer able to provide it. If -NCA- (not currently available) appears in the description it means we are looking for the item and you may be able to order it in the future.

MERCHANDISE RETURNS

Should it become necessary to return merchandise for exchange or credit please see our guarantee on page one of the catalog. Please write, fax, e-mail or call with a reason for the return and you will be given a Return Authorization (RA). **Customer service is available by phone from 8am-10am and 2pm-4pm, Mon.-Fri.** All returns should be sent promptly; all returns must be received by us within 30 days or the RA will become invalid. The RA number must be placed on the outside of the package being returned in order to assure that your return is handled in a timely manner. We reserve the right to charge a restock fee where no evidence of product failure exists.



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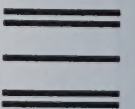
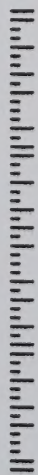
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Before Mailing

Four horizontal lines for address or other information.

ANTIQUE ELECTRONIC SUPPLY

P.O. BOX 27468
Tempe, Arizona USA 85285-7468



Place
Stamp
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Be sure to:

- Sign and enclose your check, or complete charge card information.
- Print your name, address and zip clearly.
- Print part numbers and product description clearly. Thank you for your order.

NEAT ODDS AND ENDS



TUBE BASES

4 pin G-122 \$13.45/dozen
5 & 6 pin G-123 \$13.45/dozen

Nipper 12oz.
G-435 \$8.95

Antique 11oz.
G-821 \$4.95

COFFEE MUGS

NIPPER DOG



Banks (While supplies last)

9" high G-746B \$37.95
12" high G-747B \$47.95

Figurines

3" high G-744 \$6.50
6 1/2" high G-722F \$14.95
9" high G-746F \$37.95
12" high G-747F \$49.95



Nipper Music Box

Plays "Where Has My Little Dog Gone?"
Approx. 5 1/2" x 6"

G-748 \$34.95



Stuffed Nippers

6" high G-767 \$9.95
12" high G-768 \$19.95

While Supplies Last



Magnet 2" x 3"

G-M80 \$3.95

Nipper Diary/Notebook

6 1/4" x 8 1/4"

G-758

\$4.95

While Supplies Last



NIPPER POSTER

G-759 \$4.95

approx. 13" square



Nipper Salt & Pepper Shaker

G-147 \$14.95

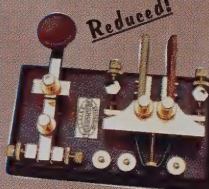
TELEGRAPH KEYS

High quality, gold plated brass keys on olive wood base. Handles and knobs are teak. From Spain. Perfect gift for the HAM in your life!

Dual - Paddle & Key

Base is 5 1/2" x 3 1/2"

G-KEY3 \$125.00



While Supplies Last!

Deluxe Straight Key

Base is 5 1/2" x 3 1/2"

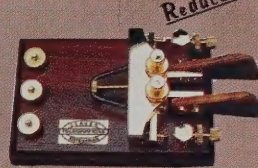
G-KEY1 \$75.00



Lambic Paddle Keyer

Base is 5" x 3 1/4"

G-KEY2 \$79.00



B-P102 24" X 36" \$4.95

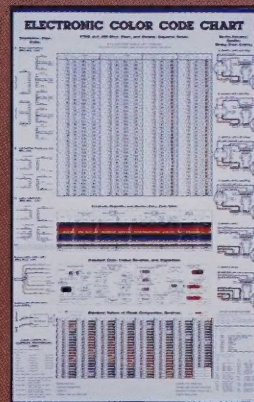


B-P101 20" X 26" \$10.95



25" X 38"

B-P105 \$16.95



25" X 38"

B-P104 \$9.95

POSTERS

The cutest little things you've ever seen. Sure to be a collector's item. A great gift for a tube lover! Each of these handmade "IT'S A CAMPY™" originals has a personality of its own. No two are alike. Each comes with solid wooden display base. Sorry, no instructions or data sheets included. While Supplies Last!

Tube People

(A handmade original)

THE COWBOY™

Swinging a lasso with his 10 gallon hat and that goofy expression, he's one big

dude!
Better watch out little heifer! Approx. 8" tall with a 3" square. G-903 \$9.95



THE FISHERMAN™

This guy is in complete disbelief that he just reeled in the big one. Maybe he's been out in the sun too long. Approx. 8" tall with a 3" square base.

G-904 \$9.95



JENSEN®

Pro Audio Vintage

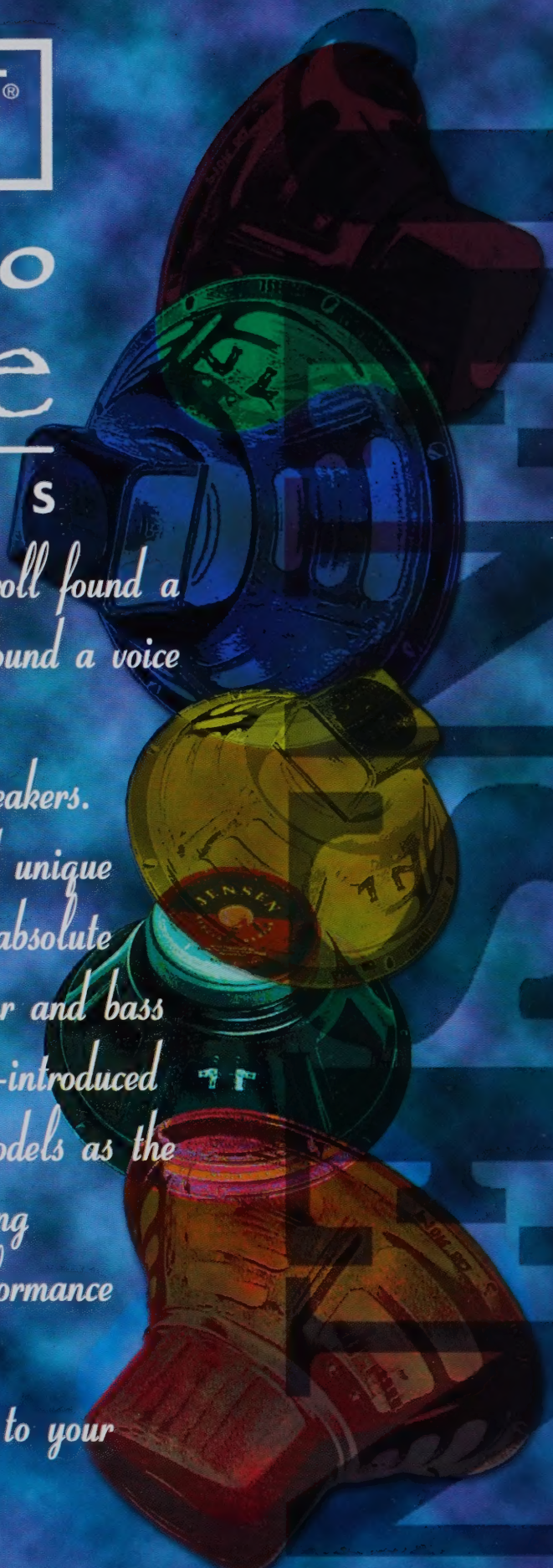
S P E A K E R S

When the legends of rock n' roll found a sound in electric music, the music found a voice in another legend —

JENSEN loudspeakers.

Their warmth, their clarity and unique sonic "personality" made them the absolute industry/reference standard for guitar and bass amp speakers. Now, Jensen has re-introduced its Alnico and Ceramic magnet models as the Jensen Vintage series. These "living legends" replicate the features, performance and cosmetics of the originals.

*Let Jensen Vintage give voice to your own unique sound —
you'll be in legendary company.*



C SERIES

The Jensen 'C' series provides additional tone choice coupled with the advantages of lower cost ceramic magnets. Originally developed in the 1960's to meet the ever increasing demands of the emerging pop music industry, the 'C' series has remained influential ever since.

The **C8R** (4 & 8 ohms) are a low cost, great value compact speaker ideal for budget priced small guitar cabinets and combos.

C8R-4

Nominal Overall Dia: 207 mm (10.2")
 Nominal Voice Coil Dia: 25 mm
 Magnet Weight: 280 g
 Magnet: Ferrite-Ceramic
 Rated Power: 25 W
 Musical Power: 50 W
 Nominal Impedance: **4 ohms**
 Sensitivity @ 1W, 1m: 94.4 dB
 Weight: approx. 2.75 lbs.

P-A-C8R-4 \$27.25

NEW!

C8R-8

Nominal Overall Dia: 207 mm (10.2")
 Nominal Voice Coil Dia: 25 mm
 Magnet Weight: 280 g
 Magnet: Ferrite-Ceramic
 Rated Power: 25 W
 Musical Power: 50 W
 Nominal Impedance: **8 ohms**
 Sensitivity @ 1W, 1m: 92.7 dB
 Weight: approx. 2.75 lbs.

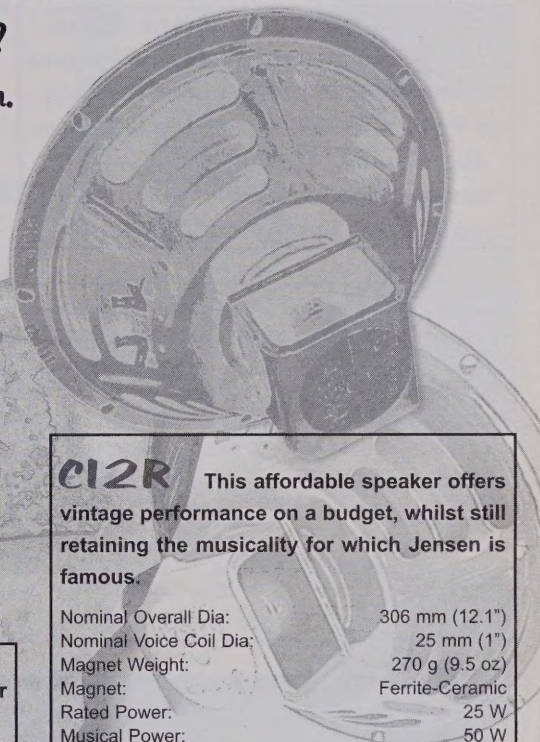
P-A-C8R-8 \$27.25

Restoring a vintage amplifier and unsure of which speaker model to use?
 Go to the original equipment amp reference list at www.tubesandmore.com.
 or call sales at 480-820-5411.

It lists many vintage amplifiers, their original speakers, and the current Jensen replacement speaker.

JENSEN

Vintage Series



C12R

This affordable speaker offers vintage performance on a budget, whilst still retaining the musicality for which Jensen is famous.

Nominal Overall Dia: 306 mm (12.1")
 Nominal Voice Coil Dia: 25 mm (1")
 Magnet Weight: 270 g (9.5 oz)
 Magnet: Ferrite-Ceramic
 Rated Power: 25 W
 Musical Power: 50 W
 Nominal Impedance: 8 ohms
 Sensitivity @ 1W, 1m: 93.8 dB
 Weight: approx. 4 lbs.

P-A-C12R \$35.00

C10Q Smooth vintage tone with clear articulate sound.

Nominal Overall Dia: 259 mm (10.2")
 Nominal Voice Coil Dia: 32 mm (1.25")
 Magnet Weight: 426 g (15 oz)
 Magnet: Ceramic
 Rated Power: 35 W
 Musical Power: 70 W
 Nominal Impedance: 8 ohms
 Sensitivity @ 1W, 1m: 95.2 dB
 Weight: approx. 4.25 lbs.

P-A-C10Q \$35.75

C12K Jensen sound with high power handling capabilities.

Nominal Overall Dia: 307 mm
 Nominal Voice Coil Dia: 50 mm
 Magnet: Ferrite-Ceramic
 Magnet Weight: 1450 g
 Rated Power: 100 W
 Musical Power: 200 W
 Nominal Impedance: 8 ohms
 Sensitivity @ 1W, 1m: 99.1 dB
 Weight: approx. 10.5 lbs.

P-A-C12K \$84.00

NEW!

C10R Sweet sounding 10" speaker ideal in 1 x 10 or 2 x 10 configuration for those great 1960's sounds.

Nominal Overall Dia: 259 mm (10.2")
 Nominal Voice Coil Dia: 25 mm (1")
 Magnet Weight: 270 g (9.5 oz)
 Magnet: Ceramic
 Rated Power: 25 W
 Musical Power: 50 W
 Nominal Impedance: 8 ohms
 Sensitivity @ 1W, 1m: 94.7 dB
 Weight: approx. 3.5 lbs.

P-A-C10R \$30.00

C12Q Great character, power handling and sensitivity gives this speaker excellent vintage tone.

Nominal Overall Dia: 306 mm
 Nominal Voice Coil Dia: 32 mm
 Magnet Weight: 426 g
 Magnet: Ferrite-Ceramic
 Rated Power: 35 W
 Musical Power: 70 W
 Nominal Impedance: 8 ohms
 Sensitivity @ 1W, 1m: 93.9 dB
 Weight: approx. 5 lbs.

P-A-C12Q \$43.50

NEW!

The **C12N** has that definitive all American rock and roll tone. It was used by almost every major amplifier manufacturer in the 1960's, and has been sought after ever since. It's sweet midrange coupled with dynamic response throughout makes this speaker an industry standard.

Nominal Overall Dia: 307 mm
 Nominal Voice Coil Dia: 38 mm
 Magnet Weight: 810 g
 Magnet: Ferrite-Ceramic
 Rated Power: 50 W
 Musical Power: 100 W
 Nominal Impedance: 8 ohms
 Sensitivity @ 1W, 1m: 98.5 dB
 Weight: approx. 8 lbs.

P-A-C12N \$62.25



P SERIES

The Jensen 'P' series, originally designed in the late 1940's and early 1950's, features highly efficient AINiCo magnets and the use where applicable of seamed cones. AINiCo magnets ensure long life and high efficiency coupled with the obvious advantages of lighter weight and smaller overall dimensions. Seamed cones give that true vintage sound. The Jensen 'P' series is therefore one of the most important contributions to Rock and Roll sounds as we know them today. The net result is pure vintage tone loved then and now by guitarists throughout the world.

PIOR

The fullness of tone for virtually any application makes the P10R the most balanced & versatile 10" guitar speaker in the world. In clean mode the P10R is punchy & full. In distortion mode its punchy bass and horn-like midrange make it ideal for sustained blues & scorching rock solos. It is simply the best!

Nominal Overall Dia:	259 mm (10.2")
Nominal Voice Coil Dia:	25 mm (1")
Magnet Weight:	200 g (7 oz)
Magnet:	AINiCo
Rated Power:	25 W
Musical Power:	50 W
Nominal Impedance:	8 ohms
Sensitivity @ 1W, 1m:	95.4 dB
Weight:	approx. 4 lbs.

P-A-P10R \$67.00

PI2N

This 12" speaker is the embodiment of vintage tone in both clean & distortion modes. Without a doubt it is the classic 12" AINiCo speaker. Appearing first in the 1950's, it is the lead guitar speaker from which all others have taken their roots.

Nominal Overall Dia:	307 mm (12.1")
Nominal Voice Coil Dia:	38 mm (1.5")
Magnet Weight:	355 g (12.5 oz)
Magnet:	AINiCo
Rated Power:	50 W
Musical Power:	100 W
Nominal Impedance:	8 ohms
Sensitivity @ 1W, 1m:	98.4 dB

No bell cover **P-A-P12N-NB \$167.25**
approx. 7.5 lbs.

With bell cover **P-A-P12N-BELL \$195.50**
approx. 8.25 lbs.

The **P8R** (4 & 8 ohms) is a versatile vintage voiced 8" guitar speaker, ideal for small classic combos or practice amps. Approx. 3.25 lbs.

P8R-4 NEW! P8R-8

Nominal Overall Dia:	207 mm	Nominal Overall Dia:	207 mm
Nominal Voice Coil Dia:	25 mm	Nominal Voice Coil Dia:	25 mm
Magnet Weight:	200 g	Magnet Weight:	200 g
Magnet:	AINiCo	Magnet:	AINiCo
Rated Power:	25 W	Rated Power:	25 W
Musical Power:	50 W	Musical Power:	50 W
Nominal Impedance:	4 ohms	Nominal Impedance:	8 ohms
Sensitivity @ 1W, 1m:	94.1dB	Sensitivity @ 1W, 1m:	92.5dB
P-A-P8R-4 \$63.00		P-A-P8R-8 \$63.00	

PI2R

This classic 12" speaker has penetrating highs and wonderful clarity of tone.

Nominal Overall Dia:	306 mm (12.1")
Nominal Voice Coil Dia:	25 mm (1")
Magnet Weight:	200 g (7 oz)
Magnet:	AINiCo
Rated Power:	25 W
Musical Power:	50 W
Nominal Impedance:	8 ohms
Sensitivity @ 1W, 1m:	93.9 dB
Weight:	approx. 4.5 lbs.

P-AP12R \$73.50

BELL COVERS

For AINiCo 'R' style Speakers
P-A-P10R and P-A-P12R

P-A-BELL-P-R \$20.00



COMING IN THE FALL OF 2000!

P15N A Classic Jensen Speaker with AINiCo magnet, found in original Fender '53' Bandmaster & Bassman.

Nominal Overall Dia:	385 mm
Nominal Voice Coil Dia:	38 mm
Magnet Weight:	355 g
Magnet:	AINiCo
Rated Power:	50 W
Musical Power:	100 W
Nominal Impedance:	8 ohms
Sensitivity @ 1W, 1m:	96.8 dB

P-A-P15N

\$198.00

J15/200

For bass amplifiers or PA subwoofer.

Nominal Overall Dia:	385 mm
Nominal Voice Coil Dia:	50 mm
Magnet Weight:	1450 g
Magnet:	Ferrite
Rated Power:	200 W
Musical Power:	400 W
Nominal Impedance:	8 ohms
Sensitivity @ 1W, 1m:	97.7 dB

P-A-J15/200

\$115.00

C15K Good replacement for any instrument amplifier or Leslie cabinets.

Nominal Overall Dia:	385 mm
Nominal Voice Coil Dia:	50 mm
Magnet Weight:	1450 g
Magnet:	Ferrite
Rated Power:	100 W
Musical Power:	200 W
Nominal Impedance:	8 ohms
Sensitivity @ 1W, 1m:	98.0 dB

P-A-C15K

\$110.00

C15N Similar in tone to the P15N but with a ceramic magnet.

Nominal Overall Dia:	385 mm
Nominal Voice Coil Dia:	38 mm
Magnet Weight:	810 g
Magnet:	Ferrite
Rated Power:	50 W
Musical Power:	100 W
Nominal Impedance:	8 ohms
Sensitivity @ 1W, 1m:	97.4 dB

P-A-C15N

\$95.00

RECONE KITS

Recone your ORIGINAL Jensen Speakers with these kits. As reconing is a specialized skill, these do not come with instructions and are for use by those who have experience in speaker reconing.

These kits cannot be returned or used on JENSEN re-issue Vintage Series Models (those manufactured after 1990).

K-RC-C10Q	\$45.00
K-RC-C10R	\$38.00
K-RC-C12N	\$75.00
K-RC-P10R	\$78.00

Ask for your
FREE Eminence
Catalog with
any Antique
Electronic
Supply order!

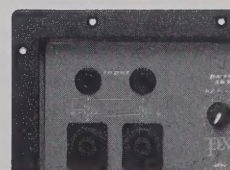
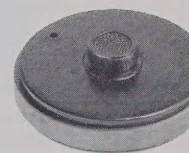
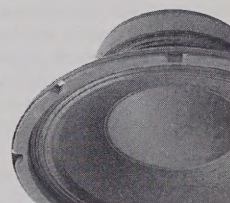
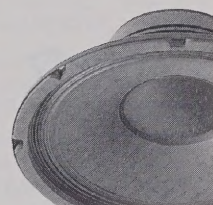
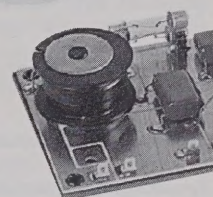
EMINENCE

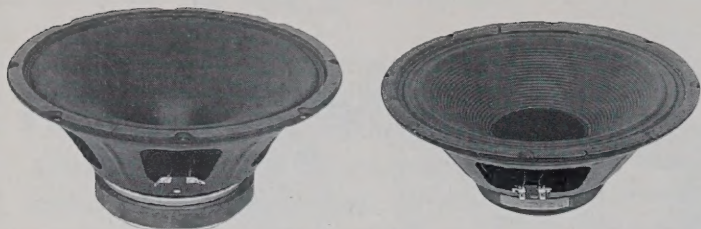
**NEW LOWER
PRICES!**

SERIES	MODEL#	SIZE	WATTS	OHMS	PRICE
LEGEND	P-A10216	10"	20 RMS	16	\$40.25
	P-A1028	10"	20 RMS	8	\$40.25
	P-A1218	12"	100 RMS	8	\$47.60
	P-A1258	12"	50 RMS	8	\$31.30
	P-A1518	15"	100 RMS	8	\$49.75
	P-AGB128	12"	50 RMS	8	\$42.05
	P-AM128	12"	80 RMS	8	\$42.05
	P-AV128	12"	80 RMS	8	\$44.65
	P-AB158	15"	300 RMS	8	\$74.30
ALPHA	P-AALPHA-8MRA ⁽¹⁾	8"	100 RMS	8	\$23.90
	P-AALPHA-10A	10"	100 RMS	8	\$28.75
	P-AALPHA-12A	12"	100 RMS	8	\$30.85
BETA	P-ABETA-8A	8"	150 RMS	8/16	\$32.00
	P-ABETA-12A	12"	150 RMS	8/16	\$36.30
	P-ABETA-12LTA	12"	150 RMS	8/16	\$37.15
DELTA	P-ADELTA-10A	10"	300 RMS	8/16	\$45.70
	P-ADELTA-10B	10"	300 RMS	16	\$45.50
	P-ADELTA-12A	12"	300 RMS	8/16	\$47.45
	P-ADELTA-15A	15"	300 RMS	8/16	\$51.55
	P-ADELTA-15B	15"	300 RMS	16	\$51.55
KAPPA	P-AKAPPA-15A	15"	400 RMS	4/8	\$81.70
	P-AKAPPA-15LFA	15"	400 RMS	8	\$88.25
KAPPAPRO	P-AKAPPAP-10A	10"	400 RMS	8	\$68.00
	P-AKAPPAP-15A	15"	400 RMS	8	\$81.70
	P-AKAPPAP-15LFA ⁽²⁾	15"	400 RMS	8	\$88.25
OMEGAPRO	P-AOMEGAP-12A	12"	600 RMS	8	\$118.30
	P-AOMEGAP-15A	15"	600 RMS	8	\$119.75
SIGMAPRO	P-ASIGMAP-18A	18"	500 RMS	8	\$124.95
KILOMAXPRO	P-AKILOMAX-15A	15"	1000 RMS	8	\$169.50
	P-AKILOMAX-18A	18"	1000 RMS	8	\$201.10
DRIVERS	P-AMD2001	1" Throat	40 RMS	8/16	\$49.70
	P-APSD2002S-8	1" Throat	40 RMS	8	\$47.30
	P-APSD2002S-16	1" Throat	40 RMS	16	\$47.30
CROSSOVERS	P-APX-II1K6	2-way, Cabinet Ready, 1.6kHz Crossover Freq., Slope(12dB/octave LP, 18dB.octave HP, Butterworth), 8 ohms, 400w RMS, HF Level: +/-9dB			\$84.35
	P-APX-II3K5	2-way, Cabinet Ready, 3.5kHz Crossover Freq., Slope(12dB/octave LP, 18dB.octave HP, Butterworth), 8 ohms, 400w RMS, HF Level: +/-9dB			\$77.20
	P-APX-II5K0	2-way, Cabinet Ready, 5kHz Crossover Freq., Slope(12dB/octave LP, 18dB.octave HP, Butterworth), 8 ohms, 400w RMS, HF Level: +/-9dB			\$87.30
	P-APX-BII1K6	2-way, Not Cabinet Ready, 1.6kHz Crossover Freq., Slope(12dB/octave LP, 18dB.octave HP, Butterworth), 8 ohms, 400w RMS			\$24.15
	P-APX-BII3K5	2-way, Not Cabinet Ready, 3.5kHz Crossover Freq., Slope(12dB/octave LP, 18dB.octave HP, Butterworth), 8 ohms, 400w RMS			\$28.20
	P-APX-BII5K0	2-way, Not Cabinet Ready, 5kHz Crossover Freq., Slope(12dB/octave LP, 18dB.octave HP, Butterworth), 8 ohms, 400w RMS			\$28.20

(1) Closed back pressed steel basket. Does not need an enclosure.

(2) Rolled cloth, cone edge.





MUSICAL INSTRUMENT SPEAKERS Full range re-placement speakers for guitar amplifiers. For rugged, high quality applications we carry Kendrick "Blackframe" speakers.

MFG.	SIZE (")	IMP.(Ω)	WATTS	PART NO.	PRICE
AES	10	8	50	P-A704	\$29.95
Kendrick (while supplies last)	10	8	20	P-A702	\$75.00
AES	12	8	75	P-A705	\$39.95
Kendrick (while supplies last)	12	8	80	P-A703	\$119.00
AES	15	8	100	P-A706	\$49.95



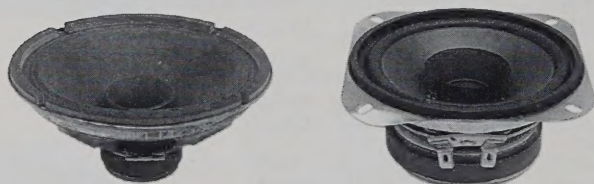
2" tweeter
0.3 lb.

5" midrange
1.1 lb.

8" woofer
1.6 lb.

3-WAY SPEAKER SET

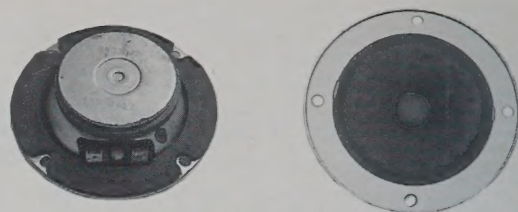
Includes woofer, midrange and tweeter shown. Branded "Pilot Audio". Weights shown are speaker weights, **not** magnet weights. 8 ohm speakers. No other specifications available. **P-AS852 \$12.95**



LOOSE REPLACEMENT SPEAKERS (While supplies last)

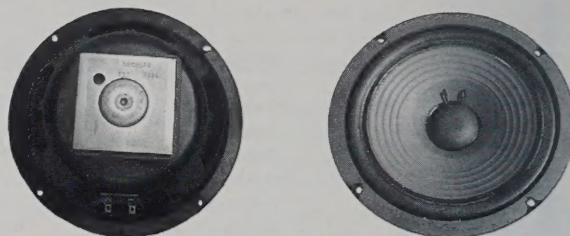
High quality, permanent magnet. For electro-dynamic speakers we suggest substituting a 5 or 10 watt wirewound resistor of approximately the same resistance as the old field coil. For output transformers, see pages 32-36.

SIZE & SHAPE	OHMS	WATTS	PART NO.	PRICE
4" square frame	4	?	P-A599	\$5.95
4" square frame	8	1	P-A600	\$5.95
2" x 6" oval frame	8	1	P-A26-8A	\$1.95
3" x 5" oval frame	3.2	1.5	P-A35-3A	\$2.00
3 1/2" round frame	3.2	4	P-A375R-32A	\$1.00
3 1/2" x 6" oval frame	3.2	?	P-A6375-3A	\$3.00
6" pin cushion frame	8	10	P-A602	\$7.95
6" x 9" oval frame	4	8	P-A69E8C	\$12.95
8" round frame	8	10	P-A603	\$17.95
5" pin cushion frame	8	3	P-A604	\$7.95
4 1/4" pin cushion frame	?	?	P-A606	\$4.95



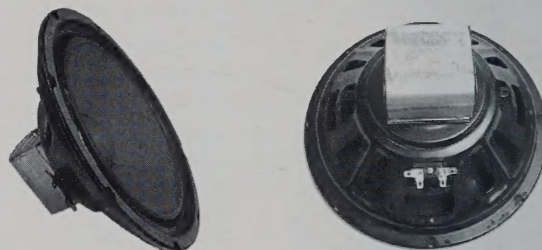
P-ACTS03 3" Tweeter, CTS, 8 Ω, 5 oz. ceramic

\$5.00



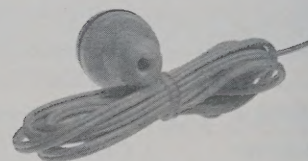
P-ACTS08 8" CTS, 8 Ω, 10 oz. ceramic

\$9.00



P-ACTS10 10" CTS, 8 Ω, 10 oz. ceramic

\$12.00



DYNAMIC EARPHONES

Dynamic earphones for use in transistor radio and other applications.

~500 ohm resistance, 3.5 mm plug **P-A482 \$1.00**

~15 ohm resistance, no plug **P-A483 \$1.00**

See page 58 for crystal earphones



HIGH IMPEDANCE DOUBLE HEADSET

High quality 2000 ohm double headphone. Has black light weight plastic ear caps, with metal headband, plastic cord and 2 phone tips. Works great with crystal set or our one tube radio kit. 1/2 lb.

P-A466 \$15.95



Original 150's If you're trying to capture the original vintage tone of pure nickel wound strings, string up a set of Original 150's! They're pure Fender Tone through and through! Ball end.
 .010 - .046 Regular **S-S150R** **\$2.95**
 .009 - .042 Lite **S-S150L** **\$2.95**
While Supplies Last

Super 250's The "high-octane" nickel plated steel string for your electric guitar. With a pure steel wrap, the magnets in your pickups use the whole string (not just the core) and transform the energy into high output bursts of sound. The nickel plating enhances feel and reduces "string squeak" and fret wear without compromising tone. Original equipment on all U.S. made Fender electric guitars. Ball end.
 .010 - .046 Regular **S-S250R** **\$3.25**
 .009 - .042 Lite **S-S250L** **\$3.25**
While Supplies Last



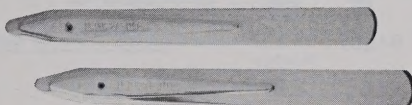
FENDER AMP REPLACEMENT KNOBS

Genuine Fender amps knobs, skirted with 0-10 numbering. Sold in packages of 6. **P-K314** **\$17.95**

FENDER CHASSIS STRAPS

Available in three sizes.
 small (3") **P-H264S** **\$7.95**
 medium (4") **P-H264M** **\$7.95**
 large (5") **P-H264L** **\$7.95**
 Contains 2 in each pack.

NEW LOWER PRICE!



FENDER KEY CHAINS While Supplies Last
 Flat amp logo **G-839** **\$7.50**
 Tweed amp logo **G-840** **\$7.50**

Tweed Black
S-M917 **\$11.95**

Tweed Brown
S-M913 **\$11.95**

70's Small Logo (CBS)
S-M915 **\$13.50**

Blackface with tail
S-M912 **\$12.95**

Tweed Bassman
S-M914 **\$12.95**



FENDER AMP TUBE SETS

FENDER TWIN REVERB

- 4 - 12AX7 Yugo made-Phillips branded
- 2 - 12AT7WC US Phillips ECG JAN
- 4 - 6L6GC Matched Svetlana

Regular Price **\$130.40**
 Set Price **\$105.00**
T-FTWIN

FENDER SUPER REVERB

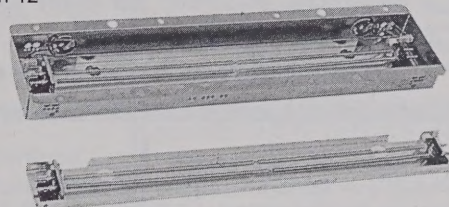
- 4 - 12AX7 Yugo made-Phillips branded
- 2 - 12AT7WC US Phillips ECG JAN
- 2 - 6L6GC Matched Svetlana

Regular Price **\$96.50**
 Set Price **\$77.50**
T-FSUPER

Accutronics®

Reverb Tanks

We now offer world famous Accutronics brand reverb tanks in 3 of the most popular styles with 12 different models to choose from. Get the warm, true sound that only spring reverberation can provide.



Type 4 The industry standard for years, the Type 4 is still manufactured using the original Hammond design. Four counter wound and coupled springs deliver superior mechanical performance and the classic sound that helped make the Fender Twin Reverb amps famous. 16 3/4" long x 4 3/8" wide.

4AB3C1B 8Ω input, 2,250Ω output, long delay, insulated input, grounded output connectors, horizontal, open side down mounting. Used in Fender, Marshall and Ampeg amps. **P-R4AB3C1B** **\$18.50**

4BB2A1B 150Ω input, 2,250Ω output, medium delay, grounded input, grounded output connectors, horizontal, open side down mounting. Used in Music Man amps. **P-R4BB2A1B** **\$18.50**

4BB3C1B 150Ω input, 2,250Ω output, long delay, insulated input, grounded output connectors, horizontal, open side down mounting. Used in SLM amps. **P-R4BB3C1B** **\$18.50**

4EB2C1B 600Ω input, 2,250Ω output, medium delay, insulated input, grounded output connectors, horizontal, open side down mounting. Peavy solid state replacement. **P-R4EB2C1B** **\$18.50**

4FB3A1B 1,475Ω input, 2,250Ω output, long delay, insulated input, insulated output connectors, horizontal, open side down mounting. General replacement. **P-R4FB3A1B** **\$18.50**

Type 8 Designed for applications in which overall sound quality is important and a compact package is required. Small in size, this three string reverb approaches the rich textural quality of larger reverb units. 9 1/4" long x 3 3/8" wide.

8AB2A1B 10Ω input, 2,575Ω output, medium delay, grounded input, grounded output connectors, horizontal, open side down mounting. Used in Mesa Boogie amps. **P-R8AB2A1B** **\$16.95**

8BB2A1B 190Ω input, 2,575Ω output, medium delay, grounded input, grounded output connectors, horizontal, open side down mounting. Used in SLM amps. **P-R8BB2A1B** **\$16.95**

8DB2C1D 310Ω input, 2,575Ω output, medium delay, insulated input, grounded output connectors, vertical connector down mounting. Used in Marshall amps. **P-R8DB2C1D** **\$16.95**

8EB2C1B 800Ω input, 2,575Ω output, medium delay, insulated input, grounded output connectors, horizontal, open side down mounting. Used in Fender, Peavy, Music Man amps. **P-R8EB2C1B** **\$16.95**

Type 9 Six springs, counter wound, coupled and placed in parallel, combine to create the fullest, richest reverb effect throughout the full range of musical sound. Ideally suited for keyboard, sound reinforcement and pedal steel applications. 16 3/4" long x 4 3/8" wide.

9AB2A1B 10Ω input, 2,575Ω output, medium delay, insulated input, grounded output connectors, horizontal, open side down mounting. Used in Fender, Mesa Boogie amps. **P-R9AB2A1B** **\$19.95**

9AB3C1B 10Ω input, 2,575Ω output, long delay, insulated input, grounded output connectors, horizontal, open side down mounting. Used in Fender amps. **P-R9AB3C1B** **\$19.95**

9FB2A1C 1,928Ω input, 2,575Ω output, medium delay, grounded input, grounded output connectors, vertical connector up mounting. Used in Fender, Peavy, Music Man amps. **P-R9FB2A1C** **\$19.95**

TOLEX AND GRILL CLOTH

See inside front cover for grill cloth and cabinet coverings. Also see our color section for information on other guitar stuff!

BIAS KING A digital Readout for Real World Analog Measurements

As tubes age, their bias point will shift. By using the BIAS KING™ you can maintain the sound you want by periodically adjusting the bias on your amp. This will keep your tubes in top shape throughout their life and will keep your amp sounding its best. Use the chart provided to find out what range of current flow is acceptable for the tube type in your amp. It works on most octal socket tube amps, and requires no power source other than the amp it's plugged in to. It can be used to "match" tubes into pairs. Two models are available:



BIAS KING™ Features one tube socket enabling you to check the bias of your tubes one tube at a time. **S-TBKING \$115.00**

BIAS KING Pro™ Two sockets allow you to switch between two tube readouts without having to unplug tubes. **S-TBKINGPRO \$175.00**

NEW LOWER PRICE!

GUITAR MAINTENANCE KIT A complete maintenance kit in a durable rip-stop pouch that is flexible enough to fit in most guitar cases. Kit includes string winder, picks, emergency strap locks, hex wrenches, wire cutters, screwdriver with standard and phillips head (plus awl), guitar polish and lint-free flannel polish cloth. Don't get stuck without one!

While Supplies Last

S-CGMK1 \$25.00

OPTOCOUPLER

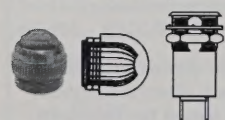
Vibrato LDR for Fender amplifiers.

R-VOP1020 \$18.95



RELAMPABLE INDICATOR LIGHT

Relampable front panel indicators accept a variety of T-2 and T-3 1/4 miniature bayonet lamps. Two colors of fluted dome lens available, three colors of jeweled lens available. Order separately from lamp. 1/16" chassis hole.



Lamp holder	P-L110	\$3.95
Fluted dome - red	P-L111	\$1.95
Fluted dome - green	P-L112	\$1.95
Jeweled Red	P-L115	\$2.25
Jeweled Green	P-L116	\$2.25
Jeweled Amber	P-L117	\$2.25

INDICATOR LIGHT

Classic brushed antique finish for use with T-3 1/4 miniature bayonet base bulbs (sold separately). Flat, back frosted green lens. Mounts from rear in 1/16" hole. Comes with 3 knurled mounting rings. 75W, 125V rating.

P-L114 \$2.50



GUITAR CHICKEN FEET

Set screw included. Black

P-K307 \$1.00



GUITAR AMP CASTERS



Heavy duty swivel caster for use on Fender and other amps. 2" diameter wheel supports 44 lbs. Can be purchased with or without metal socket.

Castor & Socket	P-HW01S	\$6.50
Castor only	P-HW02	\$4.95
Socket only	P-HW03	\$2.50



P-H263



P-H260
P-H261
P-H261B



P-H262

REPLACEMENT HANDLES

High quality replacement handles for vintage Fender amps. Will work on other amplifiers as well. Includes mounts and screws.

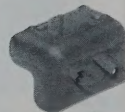
Black strap with silver caps	P-H261	8 1/2"	\$5.95
Black strap with black caps	P-H261B	8 1/2"	\$5.95
Brown strap with caps	P-H260	8 1/2"	\$5.95
Brown leather-raised	P-H262	6 1/2"	\$7.95
Brown leather-flat	P-H263	6 1/2"	\$7.95

Center To Center Measurement In Inches

CABINET CORNERS

Chrome with lip, as used on Fender. Sold individually. **P-HHR2040 \$1.75**
Plastic, Small chevron stacking corners, 4 mm countersunk holes. Sold individually.

P-H266 \$1.25



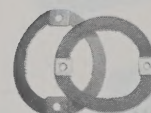
5881 TUBE RETAINER

For use with guitar amps and applications where tube is suspended upside down in chassis. **S-H141 \$1.75**



OCTAL TUBE RETAINER. Grips tube base with "teeth" to securely hold tube in place. For use with octal sockets with 1 1/2" mounting centers. Sold in package of 2.

While supplies last. **S-H142 \$1.50**



8 PIN OCTAL TUBE SOCKET UNIVERSAL CHASSIS MOUNT

Ceramic socket can be top mounted or bottom mounted, using unique ring mount in 1 1/8" chassis hole. Great replacement for Fender, Marshall and others.

P-ST8-801 \$2.75



SPEAKER GRILLS

Metal grills have flat black finish with rubber edge trim. Mounting brackets are sold separately.

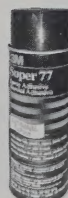
8"	P-HSG008	\$4.00
10"	P-HSG010	\$5.00
12"	P-HSG012	\$6.00
15"	P-HSG015	\$7.00
	P-HSGA1 Bracket	\$0.50ea



TOLEX ADHESIVE

3M SUPER 77 spray adhesive is the ideal adhesive for bonding tolex (or any other cloth, foil, felt, paper, etc.) to plastics, painted or unpainted metals, wood, hardboard and many other materials. Provides high coverage (over 160 sq. ft. per can), faster, more aggressive tack, longer bonding range and lower soak-in. Two spray tips are provided, one for large bonding areas and the other for smaller bonding areas.

16 1/2 oz. aerosol can. **S-F315 \$10.95**



HOW TO "READ" A RESISTOR

Most resistors are color coded with multiple bands to identify the resistance value and the tolerance. While actually measuring the resistance of a resistor before using it is a good idea, it's also a good idea to know what the resistance is suppose to be. Resistors (especially carbon composition) can drift in their actual resistance. Keep a stock of fresh resistors on hand. Use the following Standard EIA color code tables to identify resistors. See page 39 for color code chart you can purchase.

1st Band 2nd Band 3rd Band 4th Band



4 band: $\pm 2\%$, $\pm 5\%$ and $\pm 10\%$ tolerance

	1st band (1st figure)	2nd band (2nd figure)	3rd band (multiplier)	4th band (tolerance)
Color				
Black	0	0	10^0	
Brown	1	1	10^1	
Red	2	2	10^2	$\pm 2\%$
Orange	3	3	10^3	
Yellow	4	4	10^4	
Green	5	5	10^5	
Blue	6	6	10^6	
Violet	7	7	10^7	
Gray	8	8	10^8	
White	9	9	10^9	
Gold			10^{-1}	$\pm 5\%$
Silver			10^{-2}	$\pm 10\%$

1st Band 2nd Band 3rd Band 4th Band 5th Band



5 band: $\pm 1\%$, $\pm 25\%$, $\pm 5\%$ and $\pm 1\%$ tolerance

	1st band (1st figure)	2nd band (2nd figure)	3rd band (3rd figure)	4th band (multiplier)	5th band (tolerance)
Color					
Black	0	0	0	10^0	
Brown	1	1	1	10^1	$\pm 1\%$
Red	2	2	2	10^2	
Orange	3	3	3	10^3	
Yellow	4	4	4	10^4	
Green	5	5	5	10^5	$\pm 0.5\%$
Blue	6	6	6	10^6	$\pm 0.25\%$
Violet	7	7	7	10^7	$\pm 0.1\%$
Gray	8	8	8	10^8	
White	9	9	9	10^9	
Gold				10^{-1}	
Silver				10^{-2}	

Fender®

CTS POTS

We just purchased a large quantity of CTS pots in Fender replacement part packaging. Original replacement parts for many Fender items. While supplies last.

VALUE	PART NO.
5K audio	R-VCTS-5K-A
5K linear	R-VCTS-5K-L
10K audio	R-VCTS-10K-A
25K linear	R-VCTS-25K-L
50K reverse audio	R-VCTS-50K-RA*
100K linear	R-VCTS-100K-L
500K audio	R-VCTS-500K-A
3M reverse audio	R-VCTS-3M-RA

\$6.95 each*

*R-VCTS-50K-RA is \$8.95

NEW STOCK POTENTIOMETERS

24 mm carbon composition. 300° rotation. $\frac{1}{2}$ watt, 500VDC rating for linear taper, $\frac{1}{4}$ watt, 250VDC rating for audio taper. $\frac{1}{4}$ " dia. shaft. Solder lugs.

SINGLE POTS

PART NO.	VALUE	TAPER	PRICE
R-V5K	5K	audio	\$1.75
R-V10K	10K	audio	\$1.75
R-V100K	100K	linear	\$1.75
R-V500K	500K	audio	\$1.75
R-V1M	1M	audio	\$1.75

DUAL POTS

PART NO.	VALUE	TAPER	PRICE
R-V10KD1	10K	audio	\$2.75
R-V50KD1	50K	audio	\$2.75
R-V50KD2	50K	linear	\$2.75
R-V100KD1	100K	audio	\$2.75
R-V100KD2	100K	linear	\$2.75
R-V250KD1	250K	audio	\$2.75
R-V250KD2	250K	linear	\$2.75
R-V500KD1	500K	audio	\$2.75
R-V500KD2	500K	linear	\$2.75
R-V1MD1	1M	linear	\$2.75
R-V1MD2	1M	audio	\$2.75

NEW-OLD-STOCK POTENTIOMETERS

Carbon composition surplus pots. $\pm 30\%$ of values shown. **Limited supply.**

PART NO.	VALUE (Ohms)	TAPER	SHAFT	OTHER	PRICE
R-V1K	1K	linear		5 watt	\$3.00
R-V1D5K1	1.5K	audio	$\frac{1}{4}$ " flat	switch	\$1.00
R-V2K-L-SW	2K	linear	$\frac{1}{4}$ " round	switch	\$1.00
R-V350	2K	audio	$\frac{1}{4}$ " round	switch	\$2.00
R-V5K2	5K	linear	$\frac{1}{4}$ " flat	min.	\$1.00
R-V5K3	5K	audio	$\frac{1}{4}$ " round	1W, switch	\$1.00
R-V15K	15K	linear	$\frac{1}{4}$ " flattened; $\frac{3}{4}$ " long	25W	\$5.00
R-V351	25K	audio	$\frac{1}{4}$ " round		\$3.75
R-V25K1	25K	linear	$\frac{1}{4}$ " round	switch	\$1.50
R-V25K3	25K	audio	$\frac{1}{4}$ " flat	min.	\$1.25
R-V25K4	25K	audio	$\frac{1}{4}$ " dial	PC mount, switch	\$1.50
R-V50KD4	50K	audio	$\frac{1}{4}$ " & $\frac{1}{8}$ "	dual control	\$1.50
R-V50K1	50K		$\frac{1}{4}$ " screwdriver	Alps brand	\$5.95
R-V100KD4	100K	audio	$\frac{1}{4}$ " & $\frac{1}{8}$ "	dual control	\$1.50
R-V500K2	500K	linear	$\frac{1}{4}$ " plastic knurled	pc mount	\$1.00
R-V500KD4	500K		$\frac{1}{4}$ " inner, $\frac{3}{16}$ " outer	dual	\$2.50
R-V2MD	2.5M	linear	$\frac{1}{4}$ " inner, $\frac{3}{16}$ " outer	dual, switch, tap	\$2.00
R-V2MD1	2M	audio	$\frac{1}{4}$ " flat	dual	\$2.50
R-V5M1	5M	linear	$\frac{1}{4}$ " plastic knurled	pc mount	\$1.00
R-V1K1	1K			Mallory NIB, 5W, switch	\$8.95

CLAROSTAT REPLACEMENT POTS

"Pick-A-Shaft" controls take any shaft listed below. $\frac{1}{16}$ " dia. body with $\frac{3}{8}$ " x 32 mounting bushing $\frac{3}{8}$ " long. May be equipped with switches listed below. Order by # R-VA47 followed by resistance value and curve letter. "S" is linear. "Z" is audio taper. 0.5 watt.

RESISTANCE VALUES AND TAPER

1000 S	10K Z	100K S	500K Z
5000 S	25K S	100K Z	1 MEG S
10K S	50K S	500K S	1 MEG Z

2 MEG S
While supplies last R-VA47-(OHM) \$9.25

WIREWOUND POTS

Clarostat 4 watt wirewound "Pick-A-Shaft" controls, $\frac{1}{32}$ " dia. body with $\frac{3}{8}$ " x 32 mounting bushing. Linear Taper.

RESISTANCE VALUES

2,000, 5,000, 10,000 ohms

R-VA58-(OHM) \$21.95

While supplies last

SHAFTS FOR R-A47/R-A58 POTS

R-VRS-2	Round, 2"
R-VRS-3	Round, 3"
R-VKSS-3	Knurled Split, 3"
R-VFS-3	Flatted, 3"
R-VKFS-3	Knurled Flatted, 3"

\$3.50 ea.

SWITCHES FOR R-VA47 POTS

R-VSWE-10	SPST 3A-125V	\$5.95
R-VSWE-20	DPST 3A-125V	\$5.95

BAG 'O RESISTORS

Refill your miscellaneous resistor drawer. A minimum of 100 assorted resistors, mostly NOS carbon composition. Due to age, values have drifted, so have your ohm meter ready!

R-BAGO \$2.95

HOW TO ORDER RESISTORS

1. Determine the type of resistor you want. For example, carbon film, 1 watt. The part number begins with "R-B" for this type.
- 2 - Determine the ohm value you want. For example, 1K (1000 ohms).
- 3 - Order "R-B1K" in the package size you want. Example: R-B1K, 20pcs

CARBON FILM RESISTORS

Carbon film resistors are made by vacuum depositing a thin carbon film on a ceramic form. Available in 1/2 and 1 watt ratings. A good choice for applications which require a steady, low power drop.

- ±5% tolerance
- -55° C ~ 155° C operating range
- High stability
- Low noise
- Moisture stable
- EIA color coded
- High quality performance at economical price

1/2 Watt .4" long x .14" dia., 350 V working, 700 V overload

R-A(OHM)	Pkg/5	\$0.50
	Pkg/20	\$1.20
	Pkg/100	\$3.00

5 pieces of each value listed (save 10%) **R-AKIT \$40.95**

1 Watt .5" long x .14" dia., 500 V working, 1,000 V overload

R-B(OHM)	Pkg/5	\$0.85
	Pkg/20	\$2.40
	Pkg/100	\$8.80

5 pieces of each value listed (save 10%) **R-BKIT \$69.62**

1.0	30	390	2.7K	27K	330K
1.5	33	470	3.0K	33K	470K
2.0	39	510	3.3K	39K	680K
2.4	47	620	3.9K	47K	820K
2.7	51	680	4.3K	51K	1.0M
3.3	68	750	4.7K	56K	1.5M
4.7	82	820	5.1K	68K	2.0M
5.1	100	1.0K	5.6K	75K	3.0M
6.8	110	1.1K	6.2K	82K	4.7M
8.2	120	1.2K	6.8K	100K	6.8M
10	150	1.5K	7.5K	110K	8.2M
12	180	1.6K	8.2K	120K	
15	220	1.8K	10K	150K	
20	240	2.0K	15K	200K	
22	270	2.2K	20K	220K	
27	330	2.4K	22K	270K	

0.47	27	270	1.8K	10K	120K
1.0	30	300	2.0K	12K	150K
2.0	39	330	2.2K	15K	200K
2.4	47	390	2.4K	20K	220K
2.7	51	470	2.7K	22K	270K
3.3	68	510	3.0K	24K	330K
4.7	82	560	3.3K	27K	470K
5.1	100	680	3.9K	30K	510K
6.8	110	750	4.3K	33K	680K
8.2	120	820	4.7K	47K	820K
10	150	1.0K	5.1K	51K	1.0M
12	180	1.1K	6.2K	68K	
15	200	1.2K	6.8K	75K	
20	220	1.5K	7.5K	82K	
22	240	1.6K	8.2K	100K	

METAL OXIDE POWER RESISTORS

Metal Oxide resistors are for applications where stability under high temperature conditions is required. Available in 1 and 2 watt ratings.

- ±5% tolerance
- -55° C ~ 240° C operating range (derated over 70° C)
- 350 V working, 600 V overload
- Excellent flame retardant coating
- Stable performance in diverse conditions
- High purity ceramic core
- EIA color coded

2 Watt .63" long x .22" dia.

R-F(OHM)	Pkg/5	\$1.10
	Pkg/20	\$3.60
	Pkg/100	\$12.00

5 pieces of each value listed (save 10%) **R-FKIT \$84.15**

1 Watt .47" long x .20" dia.

R-E(OHM)	Pkg/5	\$0.90
	Pkg/20	\$2.80
	Pkg/100	\$10.50

5 pieces of each value listed (save 10%) **R-EKIT \$68.85**

CARBON COMPOSITION RESISTORS

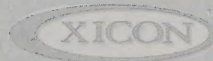
Carbon composition resistors are made by mixing carbon particles which are mixed with a binder molded into a cylindrical shape and then baked. The resistance decreases as the temperature increases. Resistance more prone to drifting than with other types. Available in 1/2 watt ratings. Standard "classic" resistor. .38" long x .14" dia.

- ±5% tolerance
- -55° C ~ 125° C operating range
- 350 V working, 700 V overload
- Low inductance
- Low capacitance
- Better pulse endurance characteristics than film type resistors
- EIA color coded

Below 1 meg ohm

R-I(OHM)	Pkg/5	\$1.25	1 meg ohm and above	Pkg/5	\$1.75
	Pkg/20	\$4.00	R-J(OHM)	Pkg/20	\$5.80
	Pkg/100	\$12.50		Pkg/100	\$20.00

5 pieces of each value listed (2.7 to 8.2M, save 10%) **R-IJKIT \$108.45**

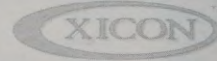


2.2	68	680	6.8K	82K	820K
2.7	82	750	7.5K	100K	1.0M
3.0	100	820	8.2K	110K	1.2M
3.9	110	1.0K	10K	120K	1.5M
4.7	120	1.1K	12K	150K	2.2M
5.1	150	1.2K	15K	200K	2.4M
6.8	180	1.5K	20K	220K	2.7M
8.2	220	1.8K	22K	240K	3.3M
10	240	2.2K	27K	270K	4.7M
12	270	2.4K	33K	330K	5.6M
15	330	2.7K	39K	390K	6.8M
20	360	3.3K	47K	470K	8.2M
27	390	3.6K	51K	510K	
36	470	4.7K	62K	620K	
47	510	5.1K	68K	680K	
51	620	6.2K	75K	750K	

METAL FILM RESISTORS

Metal film resistors consist of a resistive element of an extremely thin layer of metal alloy vacuum deposited on a substrate. Precise and quiet. Available in 1/2 watt rating. .4" long x .14" dia.

- ±1% tolerance
- -55° C ~ 155° C operating range
- 350 V working, 700 V overload
- Epoxy coated
- Nickel chromium ceramic substrate
- Alloy coated leads
- Welded end caps
- EIA color coded



R-M(OHM)	Pkg/5	\$0.85
	Pkg/20	\$2.40
	Pkg/100	\$6.90

5 pieces of each value listed (save 10%) **R-MKIT \$53.55**

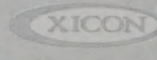
POWER RESISTORS

Wire wound resistors are made by wrapping a length of high resistance wire onto an insulating form. Metal oxide resistors are made by depositing tin oxide on the substrate, providing good stability. Ceramic flame retardant package. Exceptionally small, sturdy and reliable. Available in 5 watt and 10 watt ratings.

- ±5% tolerance
- -55° C ~ 155° C operating range
- 350 V working, 700 V overload
- Sealed with special cement
- Excellent moisture resistance
- High Temperature Stability

	Wire Wound	Metal Oxide
5W	0.5-47	50-25K
10W	0.5-750	1.0K-25K

5 Watt .86" long x .39" square		
R-Q(OHM)	Each	\$0.45
	Pkg/10	\$4.00
10 Watt 1.93" long x .39" square		
R-R(OHM)	Each	\$0.60
	Pkg/10	\$5.00



0.5	20	200	2.0K
1	30	250	2.7K
2	47	300	3.0K
3	50	360	4.7K
4	68	400	5.0K
5	75	500	10K
6.8	82	680	20K
7.5	100	750	25K
8.2	110	820	
10	120	1.0K	
15	150	1.5K	

Stepped attenuators offer distinct sonic advantages over common potentiometers. This is due to their use of discrete precision resistors and the purest method of signal attenuation: fixed resistor voltage dividers. Precision resistors have better low noise characteristics than the typical carbon or cermet resistor elements used in potentiometers.

The total measured resistance for each position of a stepped attenuator remains constant throughout years of use. This is because the wearing (rubbing) parts in stepped attenuators are switch contacts, not resistive elements with wipers sliding on them as in potentiometers. Pots used as volume controls can become "scratchy" sounding due to wear.

Stereo pots used as volume controls often produce different volume levels for each channel, and the amount of mismatch can vary as the potentiometer is turned up or down. The channel-to-channel tracking specification for stereo pots, even very expensive ones, is typically 5% to 20%. With stepped attenuators you can easily achieve stereo signal levels matched to within 1% or 2%.

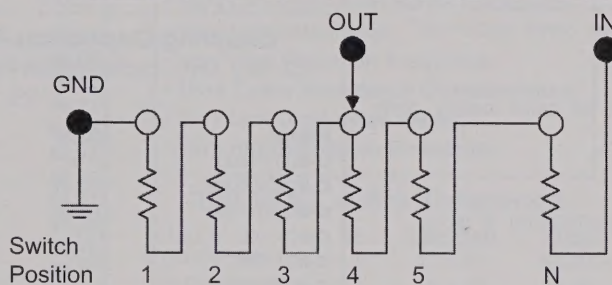
Each switch position has a precisely calculated voltage divider, so front panel calibration markings represent actual signal levels.

Potentiometer replacements/upgrades are as easy as re-connecting three wires per channel.

Series Type Attenuators

A series type stepped attenuator is a series of resistors forming a "long" voltage divider. The rotary switch is used to select where in the voltage divider the output will be. The input impedance remains constant, so any signal source sees a non varying impedance, regardless of the attenuator's setting.

Compared to potentiometers (even very expensive ones), Goldpoint series type attenuators always sound better and have much better channel-to-channel tracking specifications.

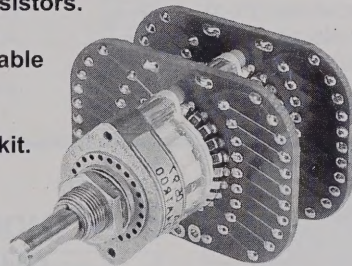


All Goldpoint stepped attenuators employ ELMA, 24-position, precision switch components. They have long lasting, silver-plated rivet type contacts with a gold flash anti-corrosion coating.

The shafts on all Goldpoint attenuators are 6mm. This size is close enough to 1/4" to allow use of knobs designed for 1/4" shafts. However, if employing knobs designed for 1/8" shafts, we recommend wrapping a few layers of tape, such as Kapton or common Scotch tape onto the attenuator shaft to create a better fit with such knobs.

HT Series type

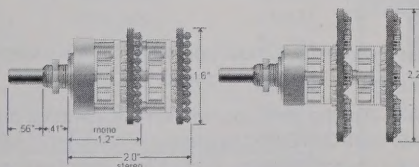
- Available fully assembled or in kit form
- 1%, 1/2 watt, metal film resistors.
- Roderstein MK-3
- 10K, 25K, 50K, 100K available
- Rear mounted
- Most popular type
- Easiest to assemble as a kit.



Mono

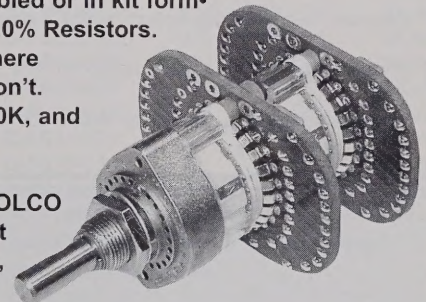
Stereo

	Part #	Price	Part #	Price
Assembled	R-VATAM-value	\$91.00	R-VATAS-value	\$167.00
Kit	R-VATKM-value	\$76.00	R-VATKS-value	\$139.00
Switch only	R-VATSM	\$70.00	R-VATSS	\$127.00



Mini-V Series type

- Available fully assembled or in kit form
- 1/4 watt Roderstein 1.0% Resistors.
- Smallest size - fits where standard HT types won't.
- 600 ohm, 10K, 25K, 50K, and 100K. available
- Rear mounted
- Also available with HOLCO 0.1% Resistors (In kit form only - 25K, 50K, 100K)

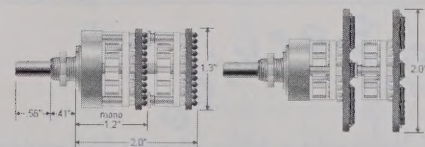


With Roderstein resistors

	Mono		Stereo	
	Part #	Price	Part #	Price
Assembled	R-VMINAM-value	\$91.00	R-VMINAS-value	\$167.00
Kit	R-VMINKMR-value	\$76.00	R-VMINKSR-value	\$139.00

With Holco resistors

	Part #	Price	Part #	Price
Kit	R-VMINKMH-value	\$101.00	R-VMINKSH-value	\$189.00
Switch only	R-VMINSM	\$70.00	R-VMINSS	\$127.00



HOLCO

Precision 1/4 watt, 0.1% Tolerance Resistors, Excellent For Use In Attenuators, Solid State Circuits. Not For Use Above 200 VDC.

VALUES	49.9	69.8	100	200	402	649	1000	2490	5110	10,000
15	51.1	75	121	249	499	806	1210	3480	6490	15,000
30.1	64.9	49.9	150	301	511	845	1740	4020	7500	20,000
34.8	71.5	50	174	348	604	909	2000	4990	8450	30,100

R-H + value \$0.99 ea.

MUSICAP[®]

by

H O V L A N D

Hovland MusiCaps enable sensitive audio circuits to achieve their ultimate level of performance. By far the most musically accurate capacitor available, MusiCaps provide a dramatic improvement in clarity, focus and dynamics when used in critical new designs, or as an upgrade to existing tube or solid-state components.

The no-compromise design of MusiCaps dictates a painstaking manufacturing process using costly materials. The result is a quality product which, while not inexpensive, delivers immediately discernible benefits and will over the long run prove an exceptional value.

MusiCaps are constructed of a special variety of foil and polypropylene film, rather than the sonically inferior deposited-particle "metalized film" used in other popular capacitors. Polypropylene is chosen in part because of its superior ability to form an intimate bond with the thin foil- neither teflon nor polystyrene mate as well. MusiCaps are individually machine-rolled, and the leads are carefully hand-soldered using lead-free silver-bearing solder. Our leads are stranded, teflon insulated, silver-plated copper- a vast improvement over sound-degrading solid copper or steel leads. In addition, the winding method and density of MusiCaps helps quell microphonic tendencies.

As a result of the premium materials used to produce MusiCaps, they are approximately 100% larger than common metalized capacitors. Because of their greater size, 5 μ F is the largest coupling MusiCap value made. You may combine MusiCaps in parallel to obtain custom values or values larger than 5 μ F. MusiCap lead lengths are approximately 2 inches on coupling caps. The red lead is the foil inner edge. It is preferable to connect the red lead towards the output of the circuit.

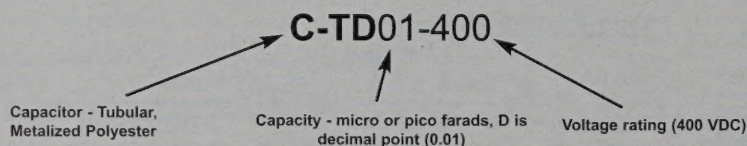
- MusiCaps deliver exceptional dynamics, speed, focus, correct timbre and depth of field, and true inter-transient silence.
- Separate layers of polypropylene film & conductive foil deliver superior clarity of reproduction that metalized capacitors can not.
- 1000V Teflon insulation on 22 gauge leads.
- Lead-free silver-bearing solder used in tinning and attachment of leads.
- Tight $\pm 5\%$ tolerances. Manufactured entirely in USA.
- Extremely low DA, DF and ESR.
- 100% pre-testing for absolute quality assurance.
- Consistent, even, winding tension assures freedom from microphonics.
- A single capacitor= a singular sound; no time smear from multiple sections.
- Value to value sonic consistency that is not found in other capacitors regard less of price.

Coupling Capacitors-Film & Foil Polypropylene

22 awg. silver-plated teflon insulated axial leads; Round case.
 $\pm 5\%$ tolerance

PART #	VALUE	WVDC	(Dia. x Length)	PRICE
C-HD01-1600	.01 μ F	1600	.39" x 1.17"	\$8.79
C-HD022-1000	.022 μ F	1000	.44" x 1.25"	\$8.79
C-HD047-1000	.047 μ F	1000	.54" x 1.75"	\$10.89
C-HD1-400	.1 μ F	400	.41" x 1.28"	\$7.79
C-HD1-600	.1 μ F	600	.50" x 1.75"	\$10.39
C-HD22-400	.22 μ F	400	.55" x 1.50"	\$10.19
C-HD22-600	.22 μ F	600	.62" x 2.00"	\$12.99
C-HD33-600	.33 μ F	600	.57" x 2.25"	\$16.49
C-HD47-400	.47 μ F	400	.59" x 2.00"	\$11.49
C-HD47-600	.47 μ F	600	.80" x 2.50"	\$19.49
C-HD68-400	.68 μ F	400	.76" x 2.00"	\$15.79
C-H1-400	1.0 μ F	400	.78" x 2.50"	\$19.49
C-H2-400	2.0 μ F	400	.98" x 3.00"	\$24.69
C-H3-200	3.0 μ F	200	.92" x 2.88"	\$24.29
C-H4D7-100	4.7 μ F	100	.95" x 2.75"	\$25.39

When ordering capacitors you want to look for three things; the type of capacitor, the capacity (micro or pico farads) and the voltage rating. Our capacitor part numbers read per the following example:



Unless noted, capacity is given in microfarads (μ F). If the part number has just the micro or pico farads listed then the voltage is the same for all values and is listed in the description of the part. One capacitor that is like this is the silver mica.

Schematic Service

We maintain a huge library of service information for early radios, TV's and other early tube gear. Copies of early radio schematics for known make & model are available for \$7.50. TV schematics, or radio schematics where make or model is unknown are available for \$12.50. Contact us with your needs, we can probably provide what you're looking for.

A FEW (MORE) WORDS ABOUT OUR WEBSITE

www.tubesandmore.com

Last year at this time, we promised to update our website and get rid of our less than adequate shopping cart. Unfortunately we did not accomplish this goal. We could list off reasons why we did not get this done, but the fact is we did not, and some of you have struggled to keep your heads above water, instead of surfing while using our site.

Again, we must apologize for the inconvenience many of you have experienced.

By the time you receive this catalog, our website WILL BE UPDATED! Completely revamped, it will have search capabilities by product line, part number or key word search. Dynamic page generation based on your search criteria will mean faster page loading with only the information you want. Integration with our inventory control system will allow us to have the web site up to date at all times. You'll know when you place your order if we are out of stock of a particular item. You'll also be able to see the status of your order on-line. We are excited about our new web site, and hope you'll stop by and take a second look.

WIMA

Designed for pc board mounting, but compact size and rectangular shape make them ideal for mounting using terminal strips.

*While supplies last.

Tolerance $\pm 5\%$, operating temperature range -55° to $+100^\circ$. All values have $1/4$ " lead length.



MKP4-Metalized polypropylene capacitors for stringent requirements

PART NO.	LEAD SPACING	PRICE
C-W4D01-400	7.5 mm	\$0.63
C-W4D015-400	7.5 mm	\$0.66
C-W4D022-400	10.0 mm	\$0.72
C-W4D033-400*	10.0 mm	\$0.77
C-W4D047-400	10.0 mm	\$0.84
C-W4D068-400	10.0 mm	\$0.93
C-W4D1-400	15.0 mm	\$1.04
C-W4D15-400*	15.0 mm	\$1.17
C-W4D22-400	15.0 mm	\$1.40
C-W4D33-400*	22.5 mm	\$2.12
C-W4D47-400	22.5 mm	\$2.50
C-W4D68-400*	22.5 mm	\$3.04
C-W41-400	7.5 mm	\$3.83

C-W4D01-630	10.0 mm	\$0.72
C-W4D015-630*	10.0 mm	\$0.73
C-W4D022-630	10.0 mm	\$0.75
C-W4D033-630*	10.0 mm	\$0.84
C-W4D047-630	10.0 mm	\$0.92
C-W4D068-630*	15.0 mm	\$1.10
C-W4D1-630	15.0 mm	\$1.24
C-W4D15-630*	15.0 mm	\$1.51
C-W4D22-630	22.5 mm	\$2.30
C-W4D33-630	22.5 mm	\$2.75
C-W4D47-630	22.5 mm	\$3.08
C-W4D68-630*	27.5 mm	\$4.12
C-W41-630*	27.5 mm	\$5.29

MKP 10-High reliability polypropylene capacitors for pulse applications

C-W10D01-400	10.0 mm	\$0.79
C-W10D015-400	10.0 mm	\$0.86
C-W10D022-400	10.0 mm	\$0.93
C-W10D033-400*	10.0 mm	\$1.02
C-W10D047-400	15.0 mm	\$1.06
C-W10D068-400*	15.0 mm	\$1.15
C-W10D1-400	15.0 mm	\$1.26
C-W10D15-400	15.0 mm	\$1.83
C-W10D22-400	22.5 mm	\$2.30
C-W10D33-400	22.5 mm	\$2.77
C-W10D47-400	22.5 mm	\$3.15
C-W10D68-400	27.5 mm	\$4.50
C-W101-400*	27.5 mm	\$6.42

C-W10D01-630	10.0 mm	\$0.84
C-W10D015-630*	10.0 mm	\$0.99
C-W10D022-630	15.0 mm	\$1.29
C-W10D033-630	10.0 mm	\$1.69
C-W10D047-630	10.0 mm	\$2.07
C-W10D068-630	15.0 mm	\$2.46
C-W10D1-630	22.5 mm	\$3.09
C-W10D15-630*	22.5 mm	\$3.51
C-W10D22-630	27.5 mm	\$4.98
C-W10D33-630*	27.5 mm	\$6.28
C-W10D47-630*	27.5 mm	\$8.06
C-W10D68-630*	27.5 mm	\$10.08
C-W101-630	37.5 mm	\$12.94

Solen "FAST CAPACITORS" are made of the highest quality aluminum metallized polypropylene film available. They are round wounded type, tubular "square" shape. They use an extended bifilar thicker aluminum metallized high quality polypropylene film electrode construction type and the face ends are thermal metal sprayed to connect all the turns in parallel in order to obtain the lowest inductance. Leads connections are made by means of welding high purity large diameter tinned oxygen free copper leads onto the metal sprayed face ends for high current capacity. They will directly enhance the efficiency of loudspeaker and other electronic equipment.

- Very Low Dielectric Absorption Factor.
- Very Low Equivalent Series Resistance.
- Very Low Inductance.
- Very High Resonant Frequency.
- Ultra Linear Impedance Characteristics.
- Very Low Dissipation Factor.
- Very High Insulation Resistance.

250 VDC, $\pm 5\%$ Tolerance

Part #	μF	Size(mm)	Price
C-FT1-250	1.0	11 x 21	\$2.00
C-FT1D5-250	1.5	12 x 22	\$2.30
C-FT2D2-250	2.2	14 x 22	\$2.50
C-FT3D3-250	3.3	16 x 25	\$2.80
C-FT4D7-250	4.7	18 x 27	\$3.20
C-FT5D1-250	5.1	19 x 27	\$3.25
C-FT6D8-250	6.8	20 x 30	\$3.60
C-FT8D2-250	8.2	21 x 33	\$4.65
C-FT10-250	10	23 x 33	\$5.10
C-FT15-250	15	25 x 38	\$6.70
C-FT22-250	22	28 x 43	\$8.95
C-FT39-250	39	34 x 48	\$14.50
C-FT47-250	47	38 x 48	\$17.50
C-FT56-250	56	39 x 53	\$20.10
C-FT68-250	68	41 x 58	\$23.40
C-FT82-250	82	45 x 58	\$27.95

SOLEN FAST CAPACITORS

630 VDC, $\pm 5\%$ Tolerance

Part #	μF	Size(mm)	Price
C-FSD1-630	0.1	9 x 17	\$1.75
C-FSD15-630	0.15	9 x 20	\$1.75
C-FSD18-630	0.18	10 x 20	\$1.75
C-FSD22-630	0.22	11 x 20	\$1.85
C-FSD27-630	0.27	11 x 22	\$1.85
C-FSD33-630	0.33	12 x 22	\$1.85
C-FSD39-630	0.39	12 x 22	\$1.95
C-FSD47-630	0.47	13 x 22	\$1.95
C-FSD56-630	0.56	14 x 22	\$2.00
C-FSD68-630	0.68	15 x 22	\$2.10
C-FSD82-630	0.82	15 x 25	\$2.20
C-FS1-630	1.0	16 x 25	\$2.30
C-FS1D5-630	1.5	18 x 27	\$2.75
C-FS2D2-630	2.2	19 x 33	\$3.00
C-FS3D3-630	3.3	24 x 33	\$3.40
C-FS4D7-630	4.7	25 x 38	\$4.05
C-FS5D6-630	5.6	28 x 38	\$4.35
C-FS6D8-630	6.8	30 x 38	\$4.90
C-FS8D2-630	8.2	30 x 45	\$5.80
C-FS10-630	10	32 x 45	\$6.50
C-FS15-630	15	36 x 53	\$8.45
C-FS22-630	22	42 x 58	\$11.25
C-FS33-630	33	49 x 63	\$15.15
C-FS39-630	39	53 x 63	\$17.20
C-FS47-630	47	54 x 72	\$20.05

SPRAGUE ATOMS CAPS

- Low leakage current
- Long shelf life
- Ideal for applications in TV sets, auto radios, radio-phone combinations, and electronic testing equipment.
- Operating Temperature $-40^\circ C$ to $+85^\circ C$ (6WVDC-100WVDC) $-20^\circ C$ to $+85^\circ C$ (101WVDC-600WVDC)



Part No.	d x l (")	μF	WVDC	1-49	50+
C-SA25-25	$\frac{1}{2} \times \frac{1}{4}$	25	25	\$1.35	\$1.22
C-SA250-25	$\frac{3}{8} \times \frac{15}{16}$	250	25	\$1.56	\$1.41
C-SA25-50	$\frac{1}{4} \times \frac{11}{16}$	25	50	\$1.35	\$1.22
C-SA50-50	$\frac{5}{16} \times \frac{13}{16}$	50	50	\$1.36	\$1.23
C-SA100-100	$\frac{7}{16} \times 1\frac{1}{2}$	100	100	\$2.20	\$1.98
C-SA8-150	$\frac{3}{8} \times \frac{13}{16}$	8	150	\$1.48	\$1.33
C-SA10-150	$\frac{3}{8} \times \frac{13}{16}$	10	150	\$1.48	\$1.33
C-SA100-350	$1 \times 2\frac{5}{8}$	100	350	\$5.95	\$5.36
C-SA16-475	$1\frac{1}{8} \times \frac{7}{8}$	16	475	\$3.95	\$3.56
C-SA8-450	$1\frac{1}{32} \times 1\frac{1}{4}$	8	450	\$2.65	\$2.39
C-SA80-450	$1 \times 2\frac{5}{8}$	80	450	\$5.95	\$5.36
C-SA100-450	$3\frac{1}{4} \times 1\frac{1}{4}$	100	450	\$7.25	\$6.53
C-SA20-500	$\frac{7}{8} \times 2\frac{1}{4}$	20	500	\$4.10	\$3.69
C-SA40-500	$1 \times 2\frac{3}{4}$	40	500	\$5.25	\$4.73
C-SA20-600	$1 \times 3\frac{5}{8}$	20	600	\$9.25	\$8.33

SBE "ORANGE DROP" CAPACITORS

Rated for 85° C operation. Radial leads.

**Type 715P - Polypropylene Film ± 5% tolerance**

PART NO.	DIA. (")	LENGTH (")	1-49	50+
C-RD001-600	0.40	0.75	\$0.55	\$0.42
C-RD0022-600	0.40	0.75	\$0.55	\$0.42
C-RD0033-600	0.40	0.75	\$0.55	\$0.42
C-RD0047-600	0.45	0.75	\$0.55	\$0.42
C-RD0056-600	0.45	0.75	\$0.60	\$0.45
C-RD01-600	0.45	0.95	\$0.65	\$0.49
C-RD015-600	0.50	0.95	\$0.65	\$0.49
C-RD022-600	0.55	0.95	\$0.82	\$0.62
C-RD033-600	0.55	1.30	\$0.94	\$0.71
C-RD047-600	0.60	1.30	\$0.84	\$0.63
C-RD1-600	0.75	1.30	\$1.22	\$0.93
C-RD22-600	0.85	1.70	\$2.05	\$1.54

Type PS - Polyester Film 600V, ± 10% tolerance

PART NO.	DIA. (")	LENGTH (")	1-9	10-49	50+
C-SD0012-600	0.33	0.70	\$0.62	\$0.56	\$0.47
C-SD0015-600	0.33	0.70	\$0.62	\$0.56	\$0.47
C-SD0018-600	0.33	0.70	\$0.62	\$0.56	\$0.47
C-SD002-600	0.33	0.70	\$0.62	\$0.56	\$0.47
C-SD0025-600	0.35	0.70	\$0.62	\$0.56	\$0.47
C-SD0027-600	0.35	0.70	\$0.62	\$0.56	\$0.47
C-SD003-600	0.35	0.70	\$0.62	\$0.56	\$0.47
C-SD0033-600	0.35	0.70	\$0.62	\$0.56	\$0.47
C-SD004-600	0.38	0.70	\$0.64	\$0.58	\$0.48
C-SD005-600	0.38	0.70	\$0.65	\$0.59	\$0.49
C-SD0056-600	0.40	0.70	\$0.65	\$0.59	\$0.49
C-SD006-600	0.40	0.70	\$0.65	\$0.59	\$0.49
C-SD0068-600	0.40	0.70	\$0.65	\$0.59	\$0.49
C-SD0075-600	0.40	0.70	\$0.70	\$0.63	\$0.53
C-SD008-600	0.40	0.90	\$0.70	\$0.63	\$0.53
C-SD0082-600	0.40	0.90	\$0.70	\$0.63	\$0.53
C-SD01-600	0.40	0.90	\$0.70	\$0.63	\$0.53
C-SD015-600	0.40	0.90	\$0.80	\$0.72	\$0.60
C-SD02-600	0.45	0.90	\$0.87	\$0.79	\$0.65
C-SD025-600	0.45	0.90	\$1.21	\$1.09	\$0.91
C-SD03-600	0.45	1.20	\$1.21	\$1.09	\$0.91
C-SD033-600	0.45	1.20	\$1.21	\$1.09	\$0.91
C-SD04-600	0.55	1.20	\$1.25	\$1.13	\$0.94
C-SD05-600	0.55	1.20	\$1.33	\$1.20	\$0.99
C-SD056-600	0.60	1.20	\$1.33	\$1.20	\$0.99
C-SD06-600	0.60	1.20	\$1.33	\$1.20	\$0.99
C-SD068-600	0.60	1.20	\$1.33	\$1.20	\$0.99
C-SD075-600	0.60	1.20	\$1.44	\$1.30	\$1.08
C-SD082-600	0.65	1.20	\$1.45	\$1.31	\$1.09
C-SD1-600	0.65	1.20	\$1.42	\$1.28	\$1.07
C-SD15-600	0.70	1.60	\$1.99	\$1.79	\$1.49
C-SD2-600	0.80	1.60	\$2.88	\$2.59	\$2.16
C-SD22-600	0.80	1.60	\$2.98	\$2.68	\$2.24
C-SD25-600	0.80	1.60	\$2.99	\$2.69	\$2.24
C-SD33-600	0.89	1.81	\$3.84	\$3.45	\$2.88

Type PS - Polypropylene Film 1600V, ± 10% tolerance

PART NO.	DIA. (")	LENGTH (")	PRICE
C-SD001-1600	0.50	1.30	\$0.92
C-SD002-1600	0.50	1.30	\$0.92
C-SD003-1600	0.50	1.30	\$0.92
C-SD0039-1600	0.50	1.30	\$0.92
C-SD005-1600	0.50	1.30	\$0.92
C-SD006-1600	0.55	1.30	\$1.06
C-SD0068-1600	0.55	1.30	\$1.06
C-SD01-1600	0.60	1.30	\$1.21
C-SD02-1600	0.65	1.70	\$1.64
C-SD03-1600	0.75	1.70	\$1.78
C-SD05-1600	0.85	1.70	\$2.32

SBE 716P HIGH PERFORMANCE "ORANGE DROP" CAPACITORS

The Type 716P Orange Drop is a high performance version of the popular 715P series. They are made from polypropylene film and foil with pure copper leads, making them ideal for high pulse current applications. Rated for 85° C operation. ±10% tolerance. Straight radial leads with 1/2" spacing, minimum 1/2" length.

PART NO.	PRICE	PART NO.	PRICE
C-PD0047-400	\$0.82	C-PD001-600	\$0.82
C-PD0056-400	\$0.83	C-PD0022-600	\$0.82
C-PD01-400	\$0.86	C-PD0033-600	\$0.83
C-PD015-400	\$0.87	C-PD0047-600	\$0.85
C-PD022-400	\$1.03	C-PD0056-600	\$0.86
C-PD033-400	\$1.11	C-PD01-600	\$0.91
C-PD047-400	\$1.18	C-PD015-600	\$1.05
C-PD1-400	\$1.37	C-PD022-600	\$1.14
C-PD22-400	\$1.70	C-PD033-600	\$1.25
C-PD33-400	\$2.08	C-PD047-600	\$1.31
C-PD47-400	\$2.46	C-PD1-600	\$1.84
		C-PD22-600	\$2.36

ORANGE DROP CAPACITOR KIT

6 of each of the following values in the Type PS (600V, polyester) and Type 715P (600V, polypropylene), 72 pieces total. Save over purchasing individually, and you get a sturdy plastic case. .0033, .0056, .01, .022, .047 and .1 µF. C-RS1 \$49.95

MISCELLANEOUS ORANGE DROPS

C-SD0022-1000	.0022 µF, 1000 V	\$0.65
C-SD0033-800	.0033 µF, 800 V	\$0.30
C-SD0047-800	.0047 µF, 800 V	\$0.30
C-SD0082-1600	.0082 µF, 1600 V	\$0.90

While Supply Lasts

ORANGE DROP NOTES

Why use Film/Foil Capacitors? Film/Foil capacitors are used rather than ceramic, tantalum or aluminum electrolytic types when capacitance stability, high pulse current and/or dissipation factor (heat loss) are of concern. Film/Foil capacitors are manufactured with capacitance values less than 1.0 microfarad and tolerances ranging from 1% to 10%.

In comparison to other types of capacitors, Film/Foil designs offer: High insulation resistance, excellent pulse and current carrying capability, low dissipation factor, capacitance stability, low dielectric Absorption, high pulse rise time (dv/dt), non-polarized and high frequency performance.

What is the difference between Film/Foil and metalized film capacitors? Film/Foil capacitors consist of two plates of aluminum foil, which act as the electrodes, separated by a film used as the dielectric. These materials are non-inductively wound to form the capacitor section. The wire leads are welded directly to the aluminum foil which extends out on both sides of the capacitor section, hence the term extended foil design. In order to provide the utmost in dependability a sufficient thickness of dielectric film is essential. This construction criteria is the primary reason why the physical dimensions of Film/Foil capacitors are larger than that of the metalized types.

In contrast to the Film/Foil capacitor, where the electrode is an independent layer of aluminum foil, the electrode for the metalized film capacitor is an extremely thin layer of metal which is vacuum-deposited directly onto the dielectric film. The wire lead is connected to the electrodes by means of a metal spray applied to each end of the capacitor section; the lead is welded to this metal end spray. Metalized film capacitors are manufactured using a thinner dielectric film than that which is used in the same rated Film/Foil design. This is possible due to the self-healing characteristics of the metalized film. Self-healing or clearing removes a fault or short circuit in the dielectric film by vaporizing the metal electrode surrounding the defect and isolating the area.

HOW TO "READ" ORANGE DROP CAPACITORS

SBE6PS-P22
224K600V 9644

Need to determine the value of an Orange Drop cap? Use the following code to determine it's value.

MFG. PART NO

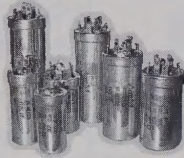
224 = capacitance in pico farads
1st 2 digits are significant digits, 3rd digit is number of digits that follow (22+0000 = 220,000 pF) = .22 µF

K = tolerance
F = 1%, J = 5%
K = 10%

600V = 9644 = date code
voltage 44th week of 1996
rating

NEW MANUFACTURE - FP TYPE CAPS

These high voltage, electrolytic can capacitors, also known as "twist-lock" or "FP" capacitors, represent a bygone era of the radio, TV and early electronics industry, and combine the convenience of multi-section design with easy mounting. Though some Aero M stock is still available, we are pleased to announce the long-term availability of these products through CE Manufacturing, LLC. With the transfer of FP capacitor manufacturing equipment, (much of it built by Mallory, the inventor of the FP type), to CE Manufacturing LLC, customers can be assured of a quality American-made product without the fear of obsolescence. These capacitors are especially applicable to new designs in the growing market of vacuum-tube audio and musical equipment manufacturing as well as in the industrial electronics industry. CE Manufacturing is a division of Campanella Enterprises which also owns Antique Electronic Supply, and CE Distribution.



PART NO.	CAPACITY@VOLTS	SIZE ("")	PRICE
C-EC20-20-450	20/20@450	1 x 2	\$24.95
C-EC20-20-20	20/20@450, 20@25	1 x 2 1/2	\$25.95
C-EC40-40-20-20	40/40/20/20@450	1 3/8 x 3 1/2	\$29.95
C-EC20X4-475	20/20/20/20@475	1 3/8 x 2	\$29.95
C-EC40-20X3	40/20/20/20@500	1 3/8 x 2 1/2	\$29.95
C-EC100-100-500	100/100@500	1 3/8 x 4	\$29.95
C-EC40X3-525	40/40/40@525	1 3/8 x 3	\$32.95
C-EC40-20X3-525	40/20/20/20@525	1 3/8 x 3	\$32.95
C-EC4020X2-525	40/40/20/20@525	1 3/8 x 3	\$32.95
C-EC80-40-30-20	80/40/30/20@525	1 3/8 x 3	\$32.95

OTHER FRESH STOCK ELECTROLYTIC CAPS

PART NO.	MFD.	VOLT	SIZE ("")	TYPE	PRICE
C-ET4700-16	4,700	16	1 3/8 x 3/8	axial	\$2.25
C-ET2200-25	2,200	25	1 3/8 x 5/8	axial	\$2.25
C-ET220-50	220	50	5/8 x 3/8	radial	\$1.75



C-EC50-50-500	LCR 2 section50/50@500V, 1 3/8 x 3, clamp	\$10.95
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ELECTROLYTIC CAN CAPACITOR SPECIALS

New, old stock. Subject to stock on hand. FP is twist lock, PFP is PC mount which can be used as twist mount.

PART NO.	CAPACITY@VOLT	TYPE AND SIZE	PRICE
C-EC20-40-5C-8C	20@350, 40@300, 500/800@50	PFP, 1 3/8" x 3"	\$4.95
C-EC30-500	30/400, 500@50	PFP, 1" x 3"	\$3.95
C-EC100X4	100/100@450, 5@50, 25@25	PFP, 1 3/8" x 3 1/2"	\$17.95
C-EC220-70-150	220/70@150	PFP, 1" x 2 1/2"	\$2.50
C-EC300-100-80	300/100/80@150	PFP, 1 3/8" x 2 1/2"	\$2.50
C-EC200-200-40	200/200@175, 40@300	PFP, 1 3/8" x 2 3/4"	\$2.50
C-EC200-150	200/150@350	PFP, 4 1/2" x 1 3/8"	\$2.95
C-EC-30-30-30-10	30/30/30/10@475	PFP, 1 3/8" x 3 1/2"	\$29.95

TWIST-MOUNT CAN MOUNTING PLATE

Phenolic insulator or metal plate for mounting FP type can capacitors.

1" dia. can insulator	S-H121	\$1.00
1" dia. can metal plate	S-H121M	\$1.25
1 3/8" dia. can insulator	S-H120	\$1.00
1 3/8" dia. can metal plate	S-H120M	\$1.25

CAN CAPACITOR MOUNTING CLAMP

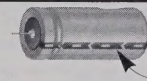
Clamp for mounting electrolytic capacitor cans in vertical position. Supplied with #6-32 screw and nut.



1" dia.	S-H123	\$1.95
1 3/8" dia.	S-H122	\$1.95
1 3/4" dia.	S-H124	\$1.95
2" dia.	S-H125	\$1.95

AXIAL LEAD ELECTROLYTICS

Highest quality low leakage tubular electrolytic capacitors. Rated for 85°C operation. Tolerance -20%, + 50%.



Note: arrows point to negative or ground end of cap.

PART NO.	DIA. ("")	LENGTH ("")	1-9	10-49	50+
C-ET10-50	0.25	0.49	\$0.51	\$0.46	\$0.38
C-ET22-50	0.25	0.63	\$0.63	\$0.57	\$0.47
C-ET33-50	0.32	0.63	\$0.63	\$0.57	\$0.47
C-ET4D7-160	0.32	0.63	\$1.75	\$1.58	\$1.32
C-ET47-35	0.63	1.00	\$0.50	\$0.45	\$0.38
C-ET47-50	0.32	0.63	\$0.71	\$0.64	\$0.53
C-ET10-160	0.40	0.79	\$0.83	\$0.75	\$0.62
C-ET22-160	0.49	0.98	\$1.03	\$0.93	\$0.77
C-ET33-160	0.49	1.18	\$1.41	\$1.27	\$1.06
C-ET47-160	0.49	1.18	\$1.53	\$1.38	\$1.15
C-ET100-160	0.63	1.18	\$2.39	\$2.15	\$1.79
C-ET47-250	0.63	1.25	\$1.95	\$1.76	\$1.47
C-ET4D7-350	0.40	0.98	\$0.89	\$0.80	\$0.67
C-ET10-350	0.49	1.18	\$1.05	\$0.95	\$0.79
C-ET22-350	0.63	1.18	\$1.69	\$1.52	\$1.27
C-ET33-350	0.63	1.57	\$2.02	\$1.82	\$1.52
C-ET47-350	0.71	1.58	\$2.55	\$2.30	\$1.91
C-ET100-350	0.98	2.36	\$2.43	\$2.19	\$1.82
C-ET4D7-450	0.49	1.18	\$1.38	\$1.24	\$1.04
C-ET10-450	0.63	1.18	\$1.28	\$1.15	\$0.96
C-ET22-450	0.71	1.57	\$1.99	\$1.79	\$1.49
C-ET33-450	0.88	1.57	\$2.76	\$2.49	\$2.07
C-ET47-450	0.88	1.96	\$3.89	\$3.50	\$2.92
C-ET100-450	0.98	2.36	\$4.62	\$4.16	\$3.47
C-ET10-500	0.63	1.18	\$2.32	\$2.09	\$1.74
C-ET22-500	0.63	1.57	\$2.86	\$2.58	\$2.15

KIT OF AXIAL LEAD ELECTROLYTIC CAPACITORS

Don't pass up this deal!! Several popular electrolytic values have been put into a kit for your convenience.. Save 15% over individual prices. 6 each of the following types: 22-50, 22-160, 33-160, 100-160, 22-450, 33-450, 47-450, 100-450

C-ET KIT \$95.47

MULTI & SINGLE SECTION TUBULAR ELECTROLYTICS

Fresh stock-no leakage.

PART NO.	CAPACITY@VOLTAGE	PRICE
C-ER33-47-160	33/47@160	\$6.25
C-ER47-47-160	47/47@160	\$6.50
C-ER47-80-160	47/80@160	\$8.50
C-ER33-33-47	33/33/47@160	\$8.50
C-ER33-47-22	33/47@160, 22@25	\$8.00
C-ET10-10	10/10@450	\$8.50
C-ET16-800	16@800, 900 surge	\$11.50
C-ET25-800	25@800, 900 surge	\$12.95
C-ER33-47-47*	33/33/47@160	\$7.95

*While Supplies Last



NEW OLD STOCK ELECTROLYTIC CAPS

PART NO.	CAPACITY@VOLTS	SIZE ("")	TYPE	PRICE
C-ET200-30	200@90V 30@60V	2 5/8 x 1	radial/clamp	\$0.75
C-ET200-150	200@150	2 5/8 x 1	axial	\$1.50
(Sprague Atom)				
C-ET200-300	200@300	3 3/8 x 3/4	axial	\$4.50
C-ET22-450-105	22@450 - 105°C rated	1 3/8 x 5/8	axial	\$1.95

When ordering capacitors you want to look for three things, the type of capacitor, the capacity (micro or pico farads) and the voltage rating. Our capacitor part numbers read per the following example:

C-TD01-400

Capacitor - Tubular, Metalized Polyester

Capacity - micro or pico farads, D is decimal point (0.01)

Voltage rating (400 VDC)

Unless noted, capacity is given in microfarads (mF). If the part number has just the micro or pico farads listed then the voltage is the same for all values and is listed in the description of the part. One capacitor that is like this is the silver mica.

METALIZED POLYESTER TUBULAR CAPACITORSTolerance $\pm 10\%$, non-inductive, self healing windings, axial leads.

PART NO.	DIA. (")	LENGTH (")	1-9	10-49	50+
C-TD01-400	0.22	0.55	\$0.38	\$0.34	\$0.29
C-TD015-400	0.22	0.55	\$0.38	\$0.34	\$0.29
C-TD022-400	0.22	0.55	\$0.38	\$0.34	\$0.29
C-TD033-400	0.24	0.55	\$0.53	\$0.48	\$0.40
C-TD047-400	0.28	0.55	\$0.42	\$0.38	\$0.32
C-TD068-400	0.26	0.75	\$0.42	\$0.38	\$0.32
C-TD1-400	0.30	0.75	\$0.48	\$0.43	\$0.36
C-TD15-400	0.33	0.75	\$0.53	\$0.48	\$0.40
C-TD22-400	0.39	0.75	\$0.60	\$0.54	\$0.45
C-TD33-400	0.39	0.98	\$0.65	\$0.59	\$0.49
C-TD47-400	0.45	0.98	\$0.66	\$0.60	\$0.50
C-TD68-400	0.51	1.26	\$0.93	\$0.84	\$0.70
C-T1-400	0.59	1.26	\$1.05	\$0.95	\$0.79
C-T2D2-400	0.79	1.26	\$2.03	\$1.83	\$1.53
C-TD001-630	0.18	0.39	\$0.63	\$0.57	\$0.47
C-TD0015-630	0.18	0.39	\$0.66	\$0.60	\$0.50
C-TD0022-630	0.18	0.39	\$0.57	\$0.51	\$0.43
C-TD0033-630	0.18	0.39	\$0.57	\$0.51	\$0.43
C-TD0047-630	0.18	0.39	\$0.45	\$0.41	\$0.34
C-TD0068-630	0.18	0.39	\$0.45	\$0.41	\$0.34
C-TD01-630	0.24	0.55	\$0.42	\$0.38	\$0.32
C-TD015-630	0.26	0.55	\$0.42	\$0.38	\$0.32
C-TD022-630	0.26	0.55	\$0.44	\$0.40	\$0.33
C-TD033-630	0.26	0.75	\$0.57	\$0.51	\$0.43
C-TD047-630	0.30	0.75	\$0.52	\$0.47	\$0.39
C-TD068-630	0.33	0.75	\$0.58	\$0.52	\$0.44
C-TD1-630	0.39	0.75	\$0.66	\$0.59	\$0.50
C-TD15-630	0.43	0.75	\$0.71	\$0.64	\$0.53
C-TD22-630	0.43	0.98	\$0.75	\$0.68	\$0.56
C-TD33-630	0.47	0.98	\$0.87	\$0.78	\$0.65
C-TD47-630	0.51	1.26	\$0.98	\$0.88	\$0.74
C-TD68-630	0.59	1.26	\$1.13	\$1.02	\$0.85
C-T1-630	0.67	1.26	\$1.45	\$1.31	\$1.09
C-T1D5-630	0.75	1.26	\$1.98	\$1.78	\$1.49
C-T2D2-630	0.79	1.85	\$2.55	\$2.30	\$1.91

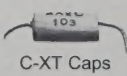
METALIZED POLYPROPYLENE TUBULAR CAPACITORSTolerance $\pm 10\%$, $+105^\circ\text{C}$, non-inductive, self healing windings, axial leads.

PART NO.	DIA. (")	LENGTH (")	1-49	50+
C-UD001-630	0.25	0.58	\$0.72	\$0.54
C-UD0015-630	0.25	0.58	\$0.82	\$0.62
C-UD0022-630	0.25	0.58	\$0.76	\$0.57
C-UD0033-630	0.25	0.58	\$0.89	\$0.67
C-UD0047-630	0.25	0.58	\$0.90	\$0.68
C-UD0068-630	0.25	0.58	\$0.75	\$0.56
C-UD0082-630	0.25	0.58	\$0.72	\$0.54
C-UD01-630	0.26	0.58	\$0.52	\$0.39
C-UD015-630	0.30	0.58	\$0.54	\$0.41
C-UD022-630	0.34	0.58	\$0.62	\$0.47
C-UD033-630	0.34	0.81	\$0.89	\$0.67
C-UD047-630	0.36	0.81	\$0.87	\$0.65
C-UD068-630	0.36	1.15	\$1.00	\$0.75
C-UD1-630	0.42	1.15	\$0.85	\$0.64
C-UD15-630	0.48	1.15	\$1.26	\$0.95
C-UD22-630	0.50	1.34	\$1.28	\$0.96
C-UD33-630	0.61	1.34	\$1.66	\$1.25
C-UD47-630	0.71	1.34	\$1.91	\$1.43
C-UD68-630	0.97	1.34	\$2.72	\$2.04

MISCELLANEOUS "GRAB BAG" CAPS

These miscellaneous caps are 10 of the same value for \$2.00. Please note, values cannot be mixed.

C-XMD047-200	0.047@200V
C-XMD01-400	0.01@400V
C-XMD056-400	0.056@400V
C-XMD0022-500	0.0022@500V
C-XTD001-200	0.01@200V



molded
molded
molded
molded

10
FOR
\$2.00!
EACH
TYPE

CERAMIC DISC CAPACITORS

PART NO.	VALUE (pF)	TOLERANCE	PRICE
2,000 WVDC			
C-D390-2000	390	$\pm 10\%$	\$0.18
C-D470-2000	470	$\pm 10\%$	\$0.22
C-D1000-2000	1,000	$\pm 10\%$	\$0.24
C-D2000-2000	2,000	$\pm 10\%$	\$0.39
3,000 WVDC			
C-D100-3000	100	$\pm 10\%$	\$0.41
C-D330-3000	330	$\pm 10\%$	\$0.41
C-D470-3000	470	$\pm 10\%$	\$0.41
C-D1000-3000	1,000	$\pm 10\%$	\$0.33
C-D5000-3000	5,000	$\pm 20\%$	\$0.89
C-D10000-3000	10,000	$\pm 20\%$	\$1.49
6,000 WVDC			
C-D220-6000	220	$\pm 10\%$	\$0.48
C-D470-6000	470	$\pm 10\%$	\$0.67
C-D560-6000	560	$\pm 10\%$	\$0.67
C-D1000-6000	1,000	$\pm 20\%$	\$0.69
C-D2200-6000	2,200	$\pm 20\%$	\$0.98
C-D3300-6000	3,300	$\pm 20\%$	\$1.61
10,000 WVDC			
C-D500-10000	500	$\pm 20\%$	\$1.03
C-D1000-10000	1,000	$\pm 20\%$	\$1.05
C-D2500-10000	2,500	$\pm 20\%$	\$2.05

SILVER MICA CAPACITORS

500 volt, 5% tolerance. Dipped epoxy coating. Capacitance in pico farads.

PART NO.	PRICE	PART NO.	PRICE
C-SM22	\$0.69	C-SM360	\$0.96
C-SM68	\$0.59	C-SM390	\$1.05
C-SM82	\$0.99	C-SM500	\$1.15
C-SM100	\$0.59	C-SM680	\$1.15
C-SM150	\$0.59	C-SM820	\$1.15
C-SM220	\$0.75	C-SM1000	\$1.15
C-SM250	\$0.81	C-SM8200	\$1.15
C-SM300	\$0.85		

BLACK BEAUTY CAP

C-BBD0068-600
.0068 mf, 600 V
\$0.75

METALIZED FILM CAP

4 mf, 200 WVDC, 10% tolerance

C-MF4-200 \$0.95
While Supplies Last**MISCELLANEOUS CAP CLAMP**

2" "C" clamp, 2 hole mounting

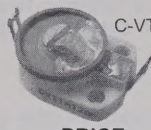
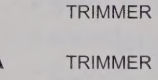
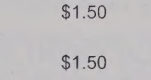
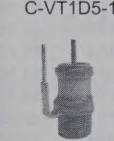
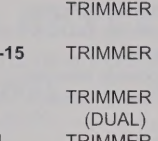
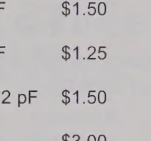
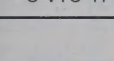
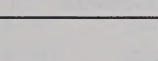
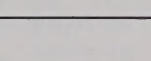
S-H411

\$1.95

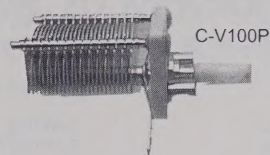


APC VARIABLE AND TRIMMER CAPACITORS

Subject to stock on hand.

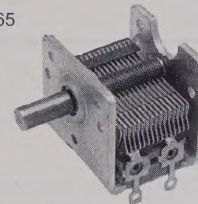
	C-VT12A		C-VT12		C-VT13
	C-VT12D5-15		C-VT12D5-15		C-VT12D5-15
	C-VT330		C-VT330		C-VT330
	C-VTO-11		C-VTO-11		C-VTO-11

PART NO.	TYPE	DESC.	PRICE
C-VT12	TRIMMER	3-12 pF, ceramic	\$1.50
C-VT12-A	TRIMMER	3-12 pF, ceramic	\$1.50
C-VT13	TRIMMER	2.5-13 pF ceramic	\$1.50
C-VT1D5-15	TRIMMER	1.5-15 pF ceramic	\$1.25
C-VT330	TRIMMER (DUAL)	3-12, 3-12 pF	\$1.50
C-VTO-11	TRIMMER	0-11 pF	\$3.00

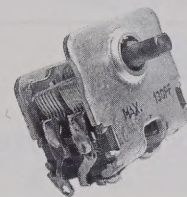


C-V365-X3

C-V365



C-V130



VARIABLE CAPACITORS

Single section 100 pf, 1 1/8" long frame, 1/4" dia. shaft 1/16" long, teflon shaft, ceramic base, screwdriver or knob adjustable, Full rotation.

C-V100P \$17.95

Two section tuning condenser. 0-128 pf with trimmer on both sides. Very nice unit with ball bearing, 1/4" length shaft, 3 pc mounting lugs on back.

C-V130 \$11.95

Single section 365 pf, 1 1/8" long frame, 1/4" dia. shaft 9/16" long, CW rotation.

C-V365 \$10.95

Two section 233 and 86 pf, 1 1/8" long frame, 1/4" dia. shaft 3/8" long, CCW rotation.

C-V233-86 \$17.95

Two section 17 plate 140-30 pf oscillator section with trimmer, 23 plate 300-30pf RF section with trimmer. Capacity increases with CCW rotation. 2 3/16" x 1.8" x 1 1/8", 1/4" rounded shaft.

C-V300-140 \$19.95

Three section, 365 pf, 3 1/4" long frame, 1/4" x 1" shaft.

C-V365-X3 \$22.95

Three section 500 pf, 3 3/8" long frame, 1/4" dia. shaft, 1 1/8" long, CCW rotation. **While supplies last.**

C-V500-X3 \$22.95

Three section, double air gap, all sections 7 plate 30-14 pf, no trimmers. Capacity increase with CCW rotation. Outer shaft 1/2 turn, 1/4" flattened, 3/8" long. Inner shaft 4 turn, 1/8" flattened. **While Supplies Last.**

C-VKFMX3 \$5.95

HEAVY DUTY CONTINUOUS DUTY VARIABLE CAPACITOR

- High voltage, high wattage, continuous duty capacitors.
- Insulation between rotor and stator is achieved through 1/4" thick, high quality military spec ceramics riveted to plated steel end plates.
- End plates are tied together by solid rods, forming a rigid structure.
- The rotor rides on ball bearings housed between front end plate and the stainless steel shaft.
- Blades are heavy .032" thick aluminum.
- The relationship between rotation and capacitance is almost perfectly linear.
- Insulated shaft.

250 pF, 2500 V max, .075" air gap, 37 blades	C-V250-2500	\$45.00
250 pF, 3500 V max, .012" air gap, 53 blades	C-V250-3500	\$48.00

HIGH VOLTAGE CAPACITORS

C-XD0051-1200	.0051 mF, 1,200 VDC foil paper in oil	\$1.65
C-D0004-2500	.0004 mF, 2,500 VDC mica block, 6-32 threaded mounting holes on 1 1/4" centers	\$2.25
C-D004-2500	.004 mF, 2,500 VDC mica "block", 6-32 threaded mounting holes on 1 1/4" centers.	\$2.25
C-D01-6K	.01 mF, 6,000 VDC disk	\$2.25
C-D001-6K	.001 mF, 6,000 VDC disk	\$2.25
C-BBD0047-6000	.0047 mF, 6,000 VDC axial	\$5.25

COMPUTER GRADE HIGH CAPACITY CAPACITORS

High capacity, screw connections. Clamp mount. Clamps sold separately. **While supplies last.**

PART NO.	MFD@VOLTS	SIZE(")	PRICE
C-EC55000-16	55,000@16	2 x 3 1/8	\$9.95
C-EC250-450	250@450	1 1/2 x 4 1/8	\$9.25
C-EC1400-450	1,400@450	2 1/2 x 5 1/8	\$16.25

BAG 'O CAPS!

Refill your miscellaneous capacitor drawer. A minimum of 200 assorted capacitors, mostly ceramic disk. **While supplies last!**

C-BAGO \$4.95

Mixed bag of Ceramic discs. Minimum of 50 pc. each

C-DBAGO \$1.95

Mixed bag of Electrolytics. Minimum of 50 pc. each

C-EBAGO \$1.95

600 VOLT STRANDED TINNED HOOK-UP WIRE

Copper wire. UL style 1015, rated to 105°C. Perfect for new projects or re-wiring of any electrical equipment. Available in 16 (while supplies last) and 22 gauge on 50 foot spools.

22 AWG

S-W22B	\$3.75
S-W22R	\$3.75
S-W22W	\$3.75
S-W22G	\$3.75
S-W22Y	\$3.75
S-W22O	\$3.75

Black
Red
White
Green
Yellow
Orange

16 AWG

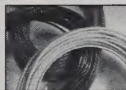
S-W16B	\$4.75
S-W16R	\$4.75
S-W16W	\$4.75
S-W16G	\$4.75
S-W16Y	\$4.75
S-W16O	\$4.75

HOOK UP WIRE

25' assorted colors, 22 gauge.

While Supply Lasts.

S-W452 \$4.00

**"PUSH-BACK" CLOTH COVERED WIRE**

New old stock push-back hook-up wire. 22 AWG, solid black color.

Per foot S-W712 \$0.25

CELANESE COVERED WIRE

White celanese covered. Resembles early cotton covered wire. May be color dyed. Litz wire ideal for loop antennas. Cotton wrap. 20 foot minimum per type.

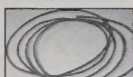
#24 Magnet Wire, Per Foot	S-W203	\$0.08
#26 Magnet Wire, Per Foot	S-W107	\$0.07
54/38 Strand-Litz Wire, Per Foot	S-W106	\$0.12
25/41 Strand-Litz Wire, Per Foot	S-W108	\$0.12

CLOTH COVERED HOOK-UP WIRE

#20 stranded copper wire covered with lacquered cotton braid, closely resembles wire used in the late 20's and 30's. Available in 8 colors, on 50 foot spools.

Orange	S-W703	\$7.25	Green	S-W707	\$7.25
Black	S-W704	\$7.25	Yellow	S-W708	\$7.25
Red	S-W705	\$7.25	White	S-W709	\$7.25
Blue	S-W706	\$7.25	Brown	S-W710	\$7.25

Get a screamin' deal! Buy all colors at the same time and receive an over 10% discount on buying each individually. Just ask for part number S-WHOOKUP-SD \$52.20

**WIRE, COTTON**

push-back, 20 foot minimum

S-W22-RED	\$0.15/FT
S-W18-GREEN	\$0.15/FT

COTTON COVERED MULTI-CONDUCTOR CABLE

8 conductor 20 gauge stranded wire with brown cotton braid over all. Replaces 1920's Atwater Kent battery cable, etc. Per foot. S-W711 \$3.00

MAGNET WIRE

Insulated with two coats of enamel. Perfect for winding coils and transformers.

21 gauge, 100 foot spool	S-WL3-610	\$4.95
22 gauge, 100 foot spool	S-WL3-611	\$4.95
24 gauge, 200 foot spool	S-WL3-612	\$4.95
28 gauge, 200 foot spool	S-WL3-614	\$4.25
32 gauge, 400 foot spool	S-WL3-616	\$4.25
36 gauge, 750 foot spool	S-W318	\$4.25
40 gauge, 1500 foot spool	S-W320	\$4.25

**NICHROME RESISTANCE WIRE**

Use for making wirewound resistors, small heater elements, or repairing filament potentiometers. Available in 4 sizes. Minimum order - 20 feet.

OHMS/FT.	GAUGE	PART NO.	PRICE/FT
2.57	26	S-W500	\$0.17
4.09	28	S-W501	\$0.17
6.50	30	S-W502	\$0.16
20.80	35	S-W503	\$0.16

OLD STYLE SPEAKER WIRE

Brown cloth-covered 2-conductor tinsel wire, like found on 1920's vintage horn and cone-type speakers. Sold by the foot, terminals not included. See page 69 for phone tips. P-W413 \$1.25 / ft

EARLY STYLE SQUARE BUS WIRE

#12 AWG Square tinned copper, per 10 feet S-W140 \$2.50

BUS WIRE

#22 solid tinned copper bus wire. Approximately 100'. per spool S-W428 \$3.95

2 CONDUCTOR SHIELDED CABLE

Two stranded 24 gauge wires, PVC insulated, cabled with fillers. Bare copper spiral shield. Blue outer insulation. Approximately 1/8" outside diameter. Per foot. While Supply Lasts. S-W450 \$0.35

BRAIDED COVERED POWER CORD

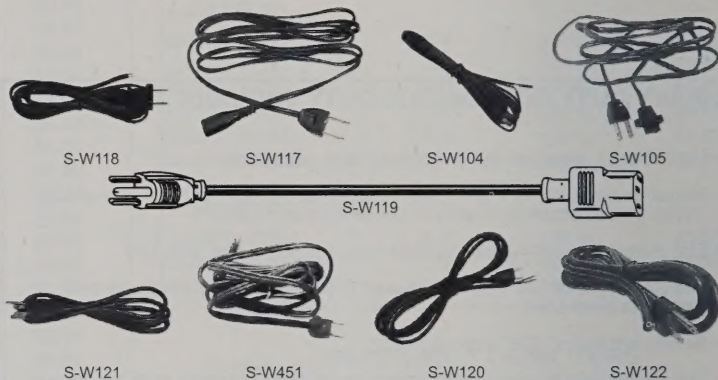
Brown 2 conductor 18 gauge, stranded power cord, similar to woven cloth covered cords in early AC radios. 20 feet S-W102-20 \$8.25

50 feet	S-W102-50	\$18.25
250 foot spool	S-W102-250	\$75.00
Gold	S-W102G	\$0.50/ft

Large dimension braid covered power similar to above but with larger overall physical dimension to more accurately represent type of wire used on early AC radios. Sold by the foot. S-W103 \$2.50

REPLACEMENT POWER CORDS

AWG	# COND.	LEN.	COMMENTS	PART #	PRICE
18	2	6' 0"	Black, SPT-1, non polarized, tinned leads	S-W118	\$1.95
18	2	6' 0"	Black, SPT-1, non polarized, detachable (Panasonic type)	S-W117	\$1.50
18	2	6' 0"	Brown, SPT-1, polarized	S-W104	\$1.75
18	2	6' 0"	Brown, SPT-1, non polarized, detachable	S-W105	\$1.50
18	3	7' 6"	Black, detachable, mates with receptacle P-SP2-106	S-W119	\$4.50
18	3	6' 7"	Black, with shield	S-W121	\$2.50
18	3	6' 0"	Black, non polarized	S-W451	\$1.50
16	3	8' 0"	Black, 13A, molded low profile plug	S-W120	\$4.50
14	3	6' 6"	Black, SJT, molded plug	S-W122	\$3.50

**POWER CORD RECEPTACLE**

Mates with power cord S-W119. Rated for 15A, 250V. UL listed.

P-SP2-106 \$1.75

**AC CORD PLUG**

Flat, brown phenolic plug, 1 1/2" wide x 1 1/8" deep.

P-SP2-104 \$2.15

AC LINE INTERLOCK

1 1/4" mounting centers.

Non polarized	P-SP2-K-002	\$1.00
Polarized	P-SP2-K-003	\$1.00

**STRAIN RELIEF**

Rubber type for standard zip cord.

P-H11402	For 1/8" dia. hole.	P-H11-402	\$0.30
	2 conductor (SP1)	P-H11-406	\$0.25
	3 conductor (fits S-W120)	P-H1100	\$0.25
P-H11406, 1100, 1200	16/3 SJT, 7/16" cord dia.	P-H1200	\$0.30

**INSULATORS**

• Old style insulator for antenna installations, molded plastic.

S-H2130		S-H2130	\$1.50
	• Ceramic form, 2 1/2" long by 1/2" dia. Both ends with 6-32 threads, use as standoff or coil/choke form.	S-H135	\$2.00
	• Mounting bracket for above, pkg/10.	S-H113	\$0.30
	• Double eyelet for above, pkg/10.	S-H114	\$0.30
	• Porcelain egg-shaped insulator. 1 1/2" x 1/2".	S-H131	\$2.50
	• Porcelain rectangular insulator, 0.7" x 0.7" x 1.2" long, 8-32 threads both ends.	S-H132	\$2.50
	• Porcelain cylindrical insulator, 3/8" x 1 1/2" long, 6-32 threads both ends.	S-H133	\$2.50
	• Insulator-12"x1 1/16", Steatite.	S-H136	\$2.00
	• Antenna nail on knob glazed insulated (not shown). Use to attach antenna to exterior of buildings, trees, etc.	S-H134	\$3.00

STRANDED AERIAL WIRE

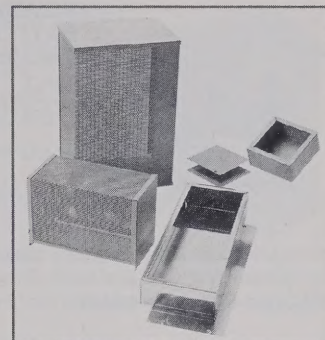
Stranded 16-gauge copper wire, not insulated. For outside antennas. 50 foot roll.

S-W32-146 \$5.95



HAMMOND MANUFACTURING™ GENERAL PURPOSE STEEL & ALUMINUM CHASSIS BOXES

- Spot welded heavy duty construction chassis
- Steel boxes are painted ASA 61 grey baked enamel finish
- Aluminum boxes are natural finish
- Covers are punched with 4 holes - $\frac{3}{16}$ " dia.



CHASSIS BOXES - 20 GAUGE - STEEL

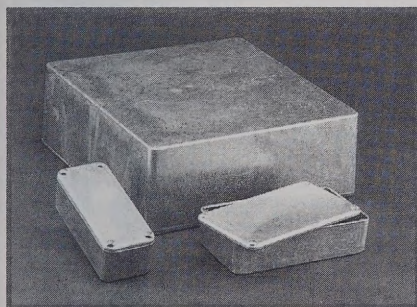
NOTE: Dimensions shown are exterior measurements.

CHASSIS BOX	PRICE	SIZE, INCHES	COVER PLATE	PRICE
P-H1441-8	\$7.90	6 x 4 x 2	P-H1431-8	\$3.98
P-H1441-12	\$8.62	7 x 5 x 2	P-H1431-12	\$3.91
P-H1441-16	\$11.27	10 x 6 x 2	P-H1431-16	\$5.97
P-H1441-18	\$11.93	13.5 x 5 x 2	P-H1431-18	\$6.36
P-H1441-22	\$19.67	12 x 8 x 2	P-H1431-22	\$8.46
P-H1441-32	\$26.84	17 x 10 x 3	P-H1431-30	\$8.92

STEEL CAGES - 20 GAUGE

NOTE: Dimensions shown are exterior measurements.

CAGE NO.	SIZE, INCHES	PRICE
P-H1451-16	10 x 6 x 5.2	\$27.41
P-H1451-22	12 x 8 x 5.2	\$31.28
P-H1451-30	17 x 10 x 5.2	\$37.83



CHASSIS BOXES - ALUMINUM

NOTE: Dimensions shown are exterior measurements.

CHASSIS BOX	THICKNESS	PRICE	SIZE, INCHES	COVER PLATE	THICKNESS	PRICE
P-H1444-8	.040"	\$7.30	6 x 4 x 2	P-H1434-8	.040"	\$3.68
P-H1444-12	.040"	\$7.98	7 x 5 x 2	P-H1434-12	.040"	\$3.61
P-H1444-16	.040"	\$10.43	10 x 6 x 2	P-H1434-16	.040"	\$5.53
P-H1444-18	.040"	\$11.05	13.5 x 5 x 2	P-H1434-18	.040"	\$5.90
P-H1444-22	.051"	\$18.20	12 x 8 x 2	P-H1434-22	.051"	\$7.80
P-H1444-32	.051"	\$24.85	17 x 10 x 3	P-H1434-30	.051"	\$8.25

All prices are 10% off of Hammond retail price. If we don't have the size you need, we can special order any Hammond product!!

1590 Series Diecast Aluminum Enclosures

- Countersunk lid with machine screws into drilled and tapped holes
- Lap joint construction provides protection from dust and water
- Vibra finished, no sharp edges

SIZE(")	PART NO.	PRICE	SIZE(")	PART NO.	PRICE
3.63 x 1.52 x 1.07D	P-H1590A	\$6.30	7.39 x 4.72 x 3.06D	P-H1590E	\$18.45
4.38 x 2.40 x 1.07D	P-H1590B	\$7.20	7.41 x 7.41 x 2.50D	P-H1590F	\$24.81
4.70 x 3.70 x 2.06D	P-H1590C	\$10.53	1.98 x 1.84 x 1.07D	P-H1590LB	\$6.50
4.70 x 3.70 x 1.18D	P-H1590BB	\$9.36	4.72 x 4.72 x 3.54D	P-H1590V	\$19.80
7.39 x 4.72 x 2.06D	P-H1590D	\$17.25			

NEW OLD STOCK PROJECT BOXES

.040" aluminum chassis boxes with one open side (sorry, no cover plates).

Availability is limited to stock on hand

SIZE(")	PART NO.	PRICE
8"x 17"x 2"	P-H120	\$16.00
10"x 17"x 3"	P-H126	\$18.00



POWER SUPPLY KIT FOR EARLY BATTERY RADIO

SPECIFICATIONS:

INPUT: 120V, 60 Hz.
 "A" OUTPUT: Adjustable and regulated 1.5 to 7.5 volts, 1.5 Amps.
 "B" OUTPUT: 22, 45, 67, 90, and 135 volts regulated up to 50 mA.
 "C" OUTPUT: Adjustable, 0 to 22 volts. Regulated.

Kit includes transformer, rectifiers, capacitors, resistors, transistors, regulator I.C. and all hardware and white pine board. Easy to follow instructions for assembly. You need only a screwdriver and soldering iron. 3.0 lbs. **K-101A \$55.00**

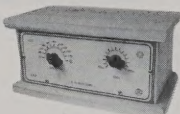
WORLD WAR II FOXHOLE RADIO KIT

Build an AM receiver using only a razor blade, pencil lead, coil and earphone!

Contains all necessary parts, base and instruction book **K-414 \$13.95**

A.M. HI-FI TUNER KIT WITH CABINET

Nothing more than a Crystal Radio, our new A.M. Hi-Fi Tuner is a nice addition for the serious AUDIOPHILE. It's been a proven fact over the years, that a crystal radio for A.M. reception, delivers the upmost in fidelity. There is no power supply, etc. to introduce "foreign" noises, into the circuit. This "Three Stage/Dual Diode" assembly, reaches down and separates the stations, like no other Crystal Radio circuit produced. This unit boasts a wide versatility in antenna and ground, so it will work most efficiently for your A.M. environment. The resulting audio output can be fed to a Hi-Fi amplifier or a high quality 2000 ohm double headphone. Easy to assemble, with an unfinished/unassembled pine cabinet. The unit is 11" long x 5 1/2" high x 6 1/2" deep. Weight is 3 pounds. (Antenna and headphone not included). **K-420 \$75.00**



CRYSTAL DETECTOR

Beautiful wood based detector comes complete with cat's whisker, ball and rod assembly, holder for galena crystal and old style binding posts. Base is 1 1/4" x 3 1/4". **Galena crystal not included. K-412 \$18.95**



CRYSTAL DETECTOR

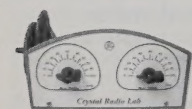
A working reproduction of the "Junior Detector Stand" sold by the William B. Duck Co. in 1921. Base is finished in dark mahogany, metal fittings are polished brass, gold lacquered. Crystal included. Base diameter is 3", overall height is 3". **K-411 \$49.95**



CRYSTAL-SET EXPERIMENTER'S KIT

Experiment & design different crystal radios; capabilities of circuits limited only by the builder. Consists of chassis, front panel, 2 spider web coils mounted to be variable to each other, cylinder style coil with 4 windings, 2-365 pf single gang variable capacitors, trimmer caps, diodes,

miscellaneous capacitors, all hardware and instructions. **K-418 \$42.50**



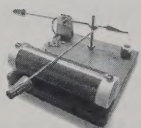
CRYSTAL RADIO KIT

A simple, yet highly sensitive crystal radio kit made out of common items found in most homes. Comes with pre-wound coil and galena crystal. Great one night project for the beginner or the kids. Marvel at listening to a radio made from "nothing". **Requires crystal earphone (P-A480 order separately). K-417 \$24.95**



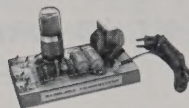
BEGINNERS CRYSTAL RADIO KIT

Crystal radio kit is ideal for the beginning radio hobbyist. Comes complete with tuning coil that you get to wind, slider, germanium diode and earphone. **K-401 \$10.95**



"MASCOT TUNING COIL"

A working reproduction of the loose coupler featured in the William B. Duck Catalog of 1921. Beautifully finished mahogany ends and brass rods. Originally advertised as designed to greatly increase the range of any of the receiving sets for experimental use. With 60 foot aerial it will respond to wave lengths up to about 800 meters. 3 1/2" square by 7 1/2" long. Assembled. **P-M166 \$39.95**



WIRELESS TRANSMITTER KIT

Now your antique radio can play some of the same programs it did when it was new! With your cassette tape player, phonograph or high output microphone, this one-tube transmitter becomes a miniature AM broadcasting station, patterned after the 1939 Zenith model S-7000 Wireless Record Player. Assemble on a 4 x 6 1/2" breadboard, all parts and instructions included. 2.0 lbs. **K-488 \$35.00**

CRYSTAL COVER

Glass crystal cover for Philmore and other crystal sets. 1" O.D. by 1 1/8" high. **P-D125 \$11.95**



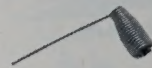
GALENA CRYSTALS

Mounted Galena Crystals, like those used in early crystal detectors. Ideal for K-412 and other detectors. **P-Q111 \$2.50**



CATS WHISKERS

Similar to the Philmore cat's whiskers and others. Made of phosphor bronze. Pkg/3. **P-H415 \$2.70**



HIGH IMPEDANCE DOUBLE HEADSET

High quality 2000 ohm double headphone. Has black lightweight plastic ear caps, with metal headband, plastic cord and 2 phone tips. Works great with crystal set or our one tube radio kit. 6 oz. **P-A466 \$15.95**



CRYSTAL EARPHONE

High impedance crystal earphone is very sensitive and works great with crystal radios. Has 3 ft. cord and miniature (3.5mm) plug. **P-A480 \$2.95**



PLUG-IN COIL FORMS

Wind your own coils with these brown plastic plug-in coil forms. 2 5/8" x 1 1/4" dia. Standard 5-pin base. **P-C211 \$5.50**



SPIDER WEB COIL FORM

Same as used in K-406. 3 1/4" dia. Made of press board. Has leg for mounting to radio base. **P-H500 \$3.25**



NEW KITS!

TWO TUBE REGENERATIVE RADIO KIT WITH RF AMP

Broadcast bands to 8 MHz. Operates on a 1.5 "C" size and 45V (S-Z415) battery and two 1T4 tubes (order these items separately). RF amplifier stage boosts input signal and prevents radiation to feed-back into antenna, typical of regenerative receivers. Kit includes pre-drilled base and front panels, dial panel, variable capacitor, germanium diode, coil forms, coil wire, knobs, hook-up wire and hardware. 4 1/2" x 7 3/4" x 4 3/4". 1.0 lb.

Optional: Unassembled/Unfinished pine cabinet available (K-600).



K-425

\$39.95

SHORT WAVE CRYSTAL RADIO KIT

Tune in worldwide signals from 3 to 14 MHz on a crystal radio! Unit works more efficiently with Antenna Tuner Kit (K-435) and AM Rejecter Trap Kit (K-435). Kit includes pre-drilled base and front panels, dial panel, variable capacitor, germanium diode, coil forms, coil wire, knobs, hook-up wire and hardware. 4 1/2" x 7 1/4" x 4 1/4".

Optional: Unassembled/Unfinished pine cabinet available (K-600).

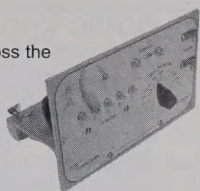


K-432

\$29.95

TAPPED COIL CRYSTAL RADIO

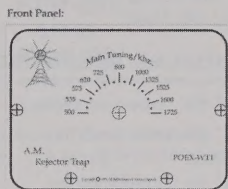
Build a crystal radio with great sensitivity and selectivity across the broadcast band! Unit works more efficiently with Antenna Tuner Kit (K-435) and AM Rejecter Trap Kit (K-434). Kit includes pre-drilled base and front panels, professional dial panel, variable capacitor, germanium diode, coil forms, coil wire, knobs, hook-up wire and hardware. 4 1/2" x 7 1/4" x 4 1/4". Antenna/Ground wire and earphone not included. 1 lb.



K-433 \$29.95

ANTENNA TRAP KIT

Very useful for crystal, TRF and regenerative radio experimenting. This trap, when placed in series with your antenna can help to null" powerful stations that "swamp" the weaker ones. Unit works more efficiently with Antenna Tuner Kit (K-435). Kit includes pre-drilled base and front panels, professional dial panel, variable capacitor, germanium diode, coil forms, coil wire, knobs, hook-up wire and hardware. 4 1/2" x 4 3/4" x 3 3/4". Antenna/Ground wire not included. 1 lb.

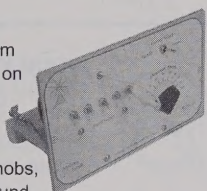


Optional: Unassembled/Unfinished pine cabinet available (K-600).

K-434 \$22.95

ANTENNA TUNER KIT

Tuner covers 375 KHz through 30MHz! Can be switched from "parallel" to "series" resonance for more complete coverage on all bands. Coil is tapped for inductance changes. Most efficiently used with AM Rejecter Trap (K-434). Kit includes pre-drilled base and front panels, professional dial panel, variable capacitor, germanium diode, coil forms, coil wire, knobs, hook-up wire and hardware. 4 1/2" x 7 1/4" x 4 1/4". Antenna/Ground wire and earphone not included. 1 lb.

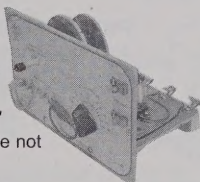


Optional: Unassembled/Unfinished pine cabinet available (K-600).

K-435 \$29.95

ONE TUBE REGENERATIVE RECIEVER KIT

With ("spider web" coils) Broadcast band through 8 MHz (approx.) Kit includes pre-drilled base and front panels, professional dial panel, variable capacitor, germanium diode, coil forms, coil wire, knobs, hook-up wire and hardware. 4 1/2" x 7 1/4" x 4 1/4". Antenna/Ground wire, headphones and 1T4 tube not included. 1 lb.

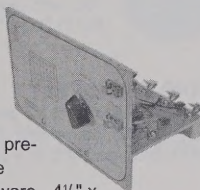


(Optional: Unassembled/Unfinished pine cabinet available (K-600).

K-436 \$31.95

TWO TUBE AF AMPLIFIER KIT

Greatly boosts the audio output of small receivers. Used with Crystal, TRF and Regenerative Receivers and high impedance earphones. Power requirements: 45-90 V/DC, Plate and 1 1/2 V/DC Filament power. May use: A/B Battery Supply Kit (K-438 recommended), or K101A Kit. Kit includes pre-drilled base and front panels, professional dial panel, Volume Potentiometer, Tube Sockets, knobs, hook-up wire and hardware. 4 1/2" x 7 1/4" x 4 3/4". Headphones and two 1S4 tubes not included. 1.0 lb.

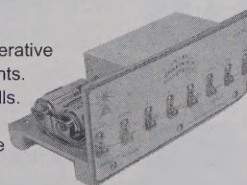


(Optional: Unassembled/Unfinished pine cabinet available (K-600).

K-437 \$24.95

A/B BATTERY SUPPLY KIT

Provides A/B battery power for small, tube-type regenerative radios and amplifiers using tubes with 1 1/2 V/DC filaments. This kit uses ten 9V transistor batteries and two "C" cells. Kit includes pre-drilled base and front panels, professional dial panel, battery holders, knobs, hook-up wire and hardware. 4 1/2" x 7 1/4" x 4 3/4". 1.0 lb.

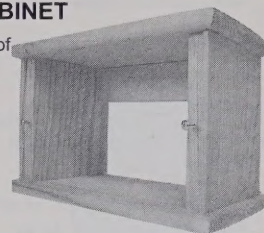


(Optional: Unassembled/Unfinished pine cabinet available (K-600). Batteries not included.

K-438 \$22.95

UNFINISHED / UNASSEMBLED PINE CABINET

New and very versitle. This handsome cabinet is made of pine and can be assembled and finished very easily. Adds a remarkable, professional look to your projects. Comes with all materials and hardware, including quick and easy instructions. 2 sizes available.



For panels 4 3/4" x 7 3/4" x 1 1/8" thick, approx. 5 3/4" deep. 1.5 lbs.

Use with kits:

K-425, 432, 433, 435, 436, 437 and 438.

K-600

\$22.95

For panels 3 3/4" x 4 3/4" x 1 1/8" thick, approx. 5 3/4" deep. 1.5 lbs.

Use with kit:

K-434

K-601

\$19.95

WHILE SUPPLIES LAST!

CRYSTAL DIODE

Point contact germanium diode, ideal for crystal radio detectors. 1N34A

While Supply Lasts.

P-Q972 \$1.00



POWER SUPPLY FOR EARLY BATTERY RADIOS

"A" Supply. Adapted specifically for A battery replacement by Antique Electronic Supply. Output 6 volts regulated $\pm 1\%$ up to 3 Amps. Supply up to 12 01A's. Adjustable 4 to 7 volts. Compact 4" x 5" x 2". Can be mounted inside your radio cabinet. With AC cord and built-in power switch. 3.0 lbs.

While Supply Lasts

S-Z116 \$69.95

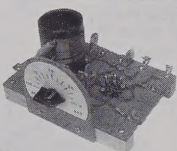


ONE TUBE RF (RADIO FREQUENCY)

ANTENNA AMPLIFIER Boosts the input signal of small receivers approximately 15 times. Operates .55 MHz to approximately 6.5 MHz. Compatible with other radio kits. Need only a screw driver, pliers and soldering iron to assemble. Includes instructions and all parts except for tube and batteries. Operates on 1.5V "C" size battery and 45V battery. Takes same tubes as shown in K-416 description. 1.0 lb.

While supplies last.

K-415 \$22.95

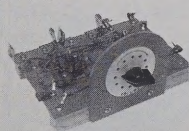


TWO TUBE AF (AUDIO FREQUENCY) HEADPHONE AMPLIFIER

Boosts the output of small receivers approximately 7 times (varies with tube selection, output load and B+ voltage). Compatible with other radio kits. Need only a screwdriver, pliers and soldering iron to assemble. Includes instructions and all parts except for tube, headphones and batteries. Uses 1A5, 1C5, 1T5, 3Q5, 1L4, 1U4, 1U5, 1S4, 3S4 or 3Q5 tubes (any two in combination (order separately)). Operates on 2 - 1.5V "C" size batteries and 45 to 90V battery. 1.0 lb. **While Supply Lasts.** (Recommended headphone P-A466 or other 2000 ohm headphone, order separately).

New Lower Price!

K-416 \$22.95

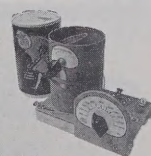


"SALT BOX" CRYSTAL RADIO

Build a working radio with a salt box. This AM band radio has higher than average selectivity due to the VARIO-COUPLER design. We supply everything needed except the salt box (found at your local store) and earphones (P-A480 order separately). While Supply Lasts

K-419 \$22.95

New Lower Price!



WIRELESS FM MICROPHONE / EARPHONE

A versatile transmitter that can transmit voice or music to any receiver within a range up to 30 feet. The small size makes it very compatible with many applications. Power is from a 9 volt battery, not included with kit.

While Supply Lasts

K-421 \$7.00



Reproduction Molded Plastic Knobs

**ZENITH**

1 1/8" dia., 1/8" dia. shaft, ivory, tuning knob
P-K189 \$ 5.50



1" dia., 1/8" dia. shaft, ivory
P-K190 \$ 5.50



1 1/8" dia., 1/8" dia. shaft, walnut finish
P-K193 \$ 6.95



1 1/8" dia., 1/8" dia. shaft, walnut finish, no set screw
P-K194 \$ 6.50



1 1/8" dia., with pointer, 1/8" dia. shaft, walnut finish
P-K195 \$ 6.50



1 1/8" dia., 1/8" dia. shaft, walnut finish
P-K196 \$ 6.50



1 1/8" dia., 1/8" dia. shaft, walnut finish
P-K204 \$ 6.95

**PHILCO**

Molded plastic knobs with set screw to fit 1/4" shaft.

P-K175 &
P-K176

"Rosette Knob"-Used on 1931-32 Philco cathedral
P-K175 1 1/2" dia. tuning knob, brown **\$ 6.25**
P-K176 1 1/8" dia. brown **\$ 6.25**
P-K177 1 1/8" dia. skirt, 1/8" dia. face **\$ 6.25**



P-K178 &
P-K179

Hex-shaped Knob-Used on 1933-34 Philcos

P-K178 1" dia. tuning knob, black **\$ 6.25**
P-K179 1 1/8" dia. black **\$ 6.25**

Mid-30's Philco Knobs-Push-on for flatted shaft (no set screw)



P-K186
P-K185

P-K181 1 1/8" dia., brown w/pointer, **\$ 5.50**
P-K185 1 1/8" dia. Inner knob for concentric tuning **\$ 5.95**

P-K186 1 1/8" dia. Outer knob for concentric tuning **\$ 5.95**

P-K209 1 1/8" dia. with pointer 3/16" long x 1/2" dia. neck to extend into cabinet **\$ 5.95**



P-K209



P-K181



P-K177

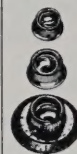
**RCA**

1 1/8" diameter, 1/8" shaft, brown.
P-K197 \$ 5.50

**ZENITH TRANSOCEANIC KNOB "BRIGHTS"**

For H 500 & 600 series, 1/8" dia., pkg of 2.

P-K985 \$ 5.75

ATWATER KENT

1 1/8" dia., brown
P-K982 \$ 5.75



1 1/8" dia., brown
P-K983 \$ 6.25



3 1/8" dia., brown with white engraving.
P-K984 \$ 7.75

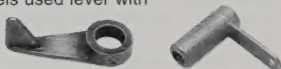
ZENITH BANDSWITCHES

Used in Zenith radios in the late 30's and early 40's. 1938 model used lever with set screw in 3:00 position, 1939 model and 1940 models used lever with set screw in 12:00 position.

3:00 set screw **P-K220 \$12.95**

12:00 set screw **P-K221 \$12.95**

Internal metal bandswitch link. Internal part for large Zenith radios made in 1940-1942 that the bandswitch wheel attaches to. Originally a potmetal part.



P-K223 \$11.50

MISCELLANEOUS NOS KNOBS

7/8" x 7/16" dia. pushbutton (Zenith) - ivory
1 1/2" long pointer knob -brown, 1/8" shaft
3/16" long pushbutton - black

P-K923
P-K454
P-K810

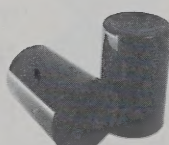
\$1.00
\$1.00
\$1.00



P-K923



P-K454



P-K810

GENERIC REPLACEMENT KNOBS

Late '30's style radio knob, injection molded plastic. 1" dia., fits 1/8" shaft, with set screw. Brown.

P-K981 \$ 5.75



Knurled Aluminum knobs, "positive grip", notched tip indicator, fits 1/8" shaft. With set screw.

Aluminum 3/8" dia **P-K310 \$ 3.25**
1" dia **P-K312 \$ 4.50**
Black 3/8" dia **P-K311 \$ 3.25**
1 1/4" dia **P-K313 \$ 4.50**



Guitar Chicken Feet, set screw included. Black
P-K307 \$ 1.00



Brushed face knob with indicator line, fits 1/8" shaft, 1 1/2" dia., double set screw. Ivory.
P-K304 \$ 3.25

**WOOD KNOBS**

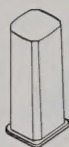
An exact reproduction of an early wood knob commonly found on many radios from 1928-1934. Knob is 1" diameter and 1/2" deep, with metal insert and set screw to fit on 1/8" diameter shaft.

Walnut **P-K903 \$ 5.00**
Mahogany **P-K904 \$ 5.00**



Similar to above except different style with 1 1/8" skirt at base of knob. Available in both walnut and mahogany finish.

Walnut **P-K971 \$ 5.00**
Mahogany **P-K972 \$ 5.00**



PHILCO PUSHBUTTONS Reproductions of the wine-colored push-buttons used for station presets on 40's vintage Philcos. Buttons measure 7/16" x 7/16" across front surface and come in 2 lengths. Back of buttons are slotted to fit onto 3/16" switch actuator.

3/8" long **P-K411 \$ 2.50**
1 1/2" long **P-K412 \$ 3.00**



REPRODUCTION TRF TUNING KNOB Direct reading channel dials for Atwater Kent radios. Replaces original knobs graduated 0 - 100, with direct frequency markings 55 - 150 for the broadcast band. 3 1/4" O.D., 1/4" shaft size with set screw.

P-K210R \$ 7.75

RADIO KNOB FELT

Premium quality wool felt washers. Medium brown in color, these washers will resist wear and hold their shape over time. All have center holes punched. Most have 1/4" i.d. Sold in packages of 5 of a size.

1/4" O.D.
3/8" O.D.
1" O.D.

P-H181 \$ 1.50
P-H200 \$ 1.50
P-H202 \$ 1.70

1 1/8" O.D.
1 1/4" O.D.

P-H201 \$ 1.60
P-H203 \$ 1.80



KNOB SPRINGS Assortments of knob springs for 1/8" moon shaft. 1/8" high x 1/32" O.D. - "D" shaped, bag of 6 **P-KS215 \$ 0.96**
3/16" high x 1/32" O.D. - "D" shaped, bag of 6 **P-KS221 \$ 0.96**

**NOS KNOB**

New-old-stock generic knob. Fits 1/8" knurled shaft, 1 1/8" diameter. Black. Good for amps, kits, etc.

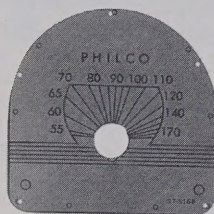
P-K986 \$ 2.95

PHILCO RADIO DIALS

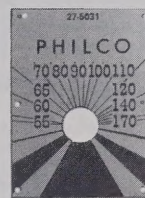
Philco generally used these dials with the listed models; however, there are some exceptions so please check your equipment thoroughly. Light brown translucent plastic, with black lettering.



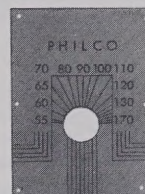
P-D27-5210
\$13.95
Philco 33B



P-D27-5168
\$12.95
Philco 84B



P-D27-5031
\$12.95
Philco 37-84



P-D27-5100
\$12.95
Philco 93B

ATWATER KENT TUNING BELTS

Beryllium copper belt stock for early A.K. and other dial drives. .004 in. thick by 1/8" wide. Can be easily soldered for joint. 5 foot length **S-M242** \$3.00

ATWATER KENT DIAL DRIVE PULLEY

A functional reproduction of the Atwater Kent pulley used in the belt drive systems of mid-twenties vintage TRF receivers. Pulley is double-width 2-belt type, but may also be used to replace the single-belt pulleys. 1 1/2" O.D., 1/4" I.D., 1/2" wide. **P-D115** \$18.95

ZENITH DIAL BELTS - While Supplies last!!

Belts are rubber impregnated fabric 1/8" wide and 1/16" thick. Equiv. to G.C. #167. Circumference Around Pulleys - 8 3/16", Cut Length - 9". Fits chassis no's. 5522, 5523, 5638, 5642, 5648, and 5710. **S-M420** \$11.95

Call for limited selection of other NOS belts not listed.

S-MDIAL-BELT \$11.95

BLACK PANEL MATERIAL

Black Lucite panels closely resemble "Bakelite" panels used on early battery radios. Glossy finish, 1/4" thick. Can be difficult to machine.
8" x 12" **S-M710** \$7.25
8" x 24" **S-M710L** \$13.50

DIAL DRIVE CABLE

We searched and searched and finally found a new supplier for 2 sizes of dial drive cable. This is a no-stretch black cord made of nylon braid over a fiberglass core. Available in 25 foot lengths.

Medium/Heavy .040" dia. **S-M74-25** \$3.25
Standard Thin .028" dia. **S-M75-25** \$2.95

Also available is dial cord for your Dynaco tuner in case your old stuff is worn or even (dare we say) cracked and broken!! **S-MDYNA** \$2.00

DIAL STRINGING AND SOLDERING TOOL

S-T122 \$3.95

DIAL REPRODUCTION MATERIAL

Translucent tan color plastic sheet, can be cut with scissors. Ideal for making replacement Philco or other dials. 8" x 10" sheet, .016" thick. **S-M190** \$7.95

DRI-TRANSFER LETTERING

Rub-on lettering simplifies panel labeling, dial marking, etc. Available in either black or white color.

DIAL MARKING KIT—Contains dial patterns, arcs, lines, dots, switch symbols, graduation lines, lines for rotary tap switches and calibrated meter dials. 3 sheets.

black **S-M175** \$4.25
white **S-M176** \$4.25

AUDIO, TV, & HI-FI—Contains over 400 words from 'AC' to 'Zero' in alphabetical order, as well as miscellaneous numbers and letters. 1/4" tall lettering, 4 sheets.

black **S-M177** \$4.25
white **S-M178** \$4.25

AMATEUR RADIO & CB—Contains over 300 words from 'AC' to 'X-TAL' in alphabetical order, as well as miscellaneous numbers, letters and frequency designations. 1/4" tall lettering, 4 sheets.

black **S-M179** \$4.25
white **S-M180** \$4.25

DIAL GLASS RUBBER EXTRUSION

High quality neoprene rubber extrusion available in three sizes. Illustration is not to scale. Sold by the foot.

MEASUREMENT	INTERNAL GAP
1/16" w x 3/16" h	0.090"
1/32" w x 3/16" h	0.080"
1/8" w x 1/8" h	0.050"
1/32" w x 1/8" h	0.100"

P-D280



PART#	PRICE
P-D280	\$3.50
P-D281	\$5.75
P-D282	\$4.25
P-D283	\$3.25

P-D281,282,283



WSMK

WSM

WSNJ

WSMB

STATION CALL LETTER TABS

Reproduction paper station inserts like used on Philco and other late 30's and 40's vintage radios with push-button tuning. Over 300 stations provided with 1/8" high letters in translucent ivory color on black background. Trim to size to fit various models. **P-D130** \$4.95



LAMP HOOD FOR RADIOLA 18

A reproduction of the dial light hood used on the Radiola 18. These are precision cast in pewter and brass plated and "antiqued" to look just like the originals.

P-D157 \$9.95

ZENITH DIAL GLASS

A reproduction of the round convex glass that covered the tuning dial on middle and late 30's Zeniths. 0.5 lb. 8 1/2" diameter. **P-D272** \$7.95

DYNACO FM-1 TUNER TUNING INDICATOR PANEL

You just replaced the EM84 indicator tube in your Dynaco tuner, but can't see it through the scratches and cracks and years of dirt. Replace the panel with a brand new one! **P-D200** \$2.00



PHILCO 70 ESCUTCHEON BROWN REPRODUCTION
P-D199 \$7.95

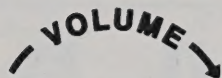


ZENITH LOG CARD

Perfect replication of log card from Zenith model 7G605. More commonly known as the Zenith Clipper Transoceanic or Zenith Bomber Transoceanic. Replaces the damaged card that you inherited with your radio. Has semi-gloss finish and matches original thickness of cardboard. Holes are not pre-drilled due to variations from radio to radio. Get one today!! **S-MZENITHLOG** \$9.95

High quality lacquer decal reproductions for early radio cabinets.

ATWATER KENT STEWART-WARNER



RCA Victor

DEWALD



MAGNAVOX HORN SPEAKER DECAL

Size 5" x 3"

While Supply Lasts. S-M902 \$12.00

CREAMER DEAL

We have another deal for you. Buy one of each type of decal and receive over 20% discount over buying each individually!! MAGNAVOX **NOT** Included. S-MDECAL-SD \$29.00

INSTRUCTIONS FOR APPLYING WATER RELEASE DECALS Cut out portion of decal sheet to be used, and soak in water until decal will slide off of paper backing. Immediately apply wet decal to radio cabinet and pat dry. Lacquer finish may be applied over decal if desired. Do not soak too long. **WATCH CAREFULLY!**

MINIATURE LAMP SOCKETS

Bayonet lamp sockets for #44 and #47 lamps, etc.



P-L101



P-L103



P-L104



P-L105



P-L114

INDICATOR LIGHT

Classic brushed antique finish for use with T-3 1/4 miniature bayonet base bulbs (sold separately). Flat, back frosted green lens. Mounts from rear in 1/8" hole. Comes with 3 knurled mounting rings. 75W, 125V rating.

While Supply Lasts.

RELAMPABLE INDICATOR LIGHT

Relampable front panel indicators accept a variety of T-2 and T-3 1/4 miniature bayonet lamps. Two colors of fluted dome lens available, three colors of jeweled lens available. Order separately from lamp. 1/8" chassis hole.



Lamp holder
Fluted dome - red
Fluted dome - green
Jeweled Red
Jeweled Green
Jeweled Amber

P-L110 \$3.95
P-L111 \$1.95
P-L112 \$1.95
P-L115 \$2.25
P-L116 \$2.25
P-L117 \$2.25

EACH \$1.25

ATWATER KENT, STEWART-WARNER—The A.K. name comes both in solid gold and solid black colors, and the Stewart-Warner name is black with gold outline. Also contains the words 'OFF-ON,' 'VOLUME,' 'TONE,' 'BAND,' 'AM,' 'FM,' 'BC,' 'SW,' 'POL' and 'AV.' S-M906 \$5.00

EMERSON TREBLE-CLEF LOGO—Gold with black outline, in 2 common sizes. Also contains the words 'OFF-ON,' 'VOLUME,' 'TONE,' 'BAND,' 'AM,' 'FM,' 'BC,' 'SW,' 'POL' and 'AV.' S-M905 \$4.95

PHILCO—Features the Philco name in 3 sizes, and 20 different knob function labels as found on Philco receivers of the 1930's and 1940's, including OFF-ON, BASS, B'D'C'ST, POL., S.W., TONE, BAND SELECTOR, TRANSITONE, HIGH FIDELITY, MAGNETIC TUNING, VOLUME, TREBLE, SELECTIVITY AND PHONO-RADIO all in gold with black outline. Many of the words are curved to follow the contour of the knobs. S-M907 \$6.00

GENERAL ELECTRIC, FADA & GAROD—"General Electric" logo appears in 3 commonly used sizes, along with "FADA Radio" and "Garod." Gold with black outline. S-M909 \$5.50

EMERSON, DEWALD, BELMONT, SONORA & TOM THUMB—"Emerson" script logo (without treble-clef sign) and other manufacturer's logos for popular plastic radios. Gold with black outline. S-M910 \$5.15

RCA, STROMBERG-CARLSON & ADMIRAL—"RCA Victor" appears in 3 different logo styles, along with "Stromberg-Carlson" and "Admiral." Gold with black outline. S-M908 \$5.75

ZENITH—Gold with black outline, in 2 common sizes. Also contains the words 'AUTOMATIC,' 'MEDIUM WAVE,' 'STD. BROADCAST,' AND 'SHORTWAVE.' S-M904 \$4.00

DIAL LAMPS Long life general replacement lamps for dials, indicators, etc. Packages of 10 except where noted.

TYPE	VOLTS	SAMPS	BASE	BULB TYPE	PART NO.	PRICE PKG/10
40	6.3	.15	Screw	T-3 1/4	P-40	\$3.50
41	2.5	.50	Screw	T-3 1/4	P-41	\$3.50
42	3.2	.35	Screw	T-3 1/4	P-42	\$3.50
43	2.5	.50	Bayonet	T-3 1/4	P-43	\$3.50
44	6.3	.25	Bayonet	T-3 1/4	P-44	\$3.50
45	2.5	.35	Bayonet	T-3 1/4	P-45	\$3.50
46	6.3	.25	Screw	T-3 1/4	P-46	\$3.50
47	6.3	.15	Bayonet	T-3 1/4	P-47	\$3.50
48	2.0	.06	Screw	T-3 1/4	P-48	\$3.50
49	2.0	.06	Bayonet	T-3 1/4	P-49	\$3.50
50	7.5	.22	Screw	G-3 1/2	P-50	\$3.50
51	7.5	.22	Bayonet	G-3 1/2	P-51	\$3.50
53	14.4	.12	Bayonet	G-3 1/2	P-53	\$3.50
55	7.0	.41	Bayonet	G-3 1/2	P-55	\$3.50
57	14.0	.24	Bayonet	G-3 1/2	P-57	\$3.50
81	6.5	1.02	Bayonet	G-6	P-81	\$1.25 each
NE2	120	.0007	Wire	T-2	P-NE2	\$1.95 each
NE45	105/125	.002	Screw	T-4 1/4	P-NE45	\$3.25 each
NE51	90/110	.0003	Bayonet	T-3 1/4	P-NE51	\$1.95 each

FUSE-TYPE LAMPS Fuse-type lamps as found in some American Hi-Fi components of the 1960's. 1/8" x 1 1/8".



6 volt, 0.15 A Pkg. of 10 P-L107 \$4.50
8 volt, 0.20 A Pkg. of 10 P-L108 \$4.50

WE HAVE GIFT CERTIFICATES!

Are you looking for the perfect gift for your hobbyist friend, but aren't quite sure about the certain item they need? How about an Antique Electronic Supply gift certificate?

They are available in any amount over \$20.00 and are good for 1 year after the issue date. **I-200**



MOHAWK CLEAR SPRAY SHELLAC

Provides a clear coating for many different surfaces. Shellac has an unusual adhesion to hard-to-grip surfaces. Hold out is exceptional on wood, plywood and plaster. Recommended for spot sealing knot holes, sap streaks and refilled areas before refinishing. Net weight 12 oz.

S-F308* \$7.50



New Lower Price!

MOHAWK ULTRA-FLO CLEARS

Formulated with special resins and solvents to provide a finish film free of orange peel. Little or no overspray when used over spot repairs over an existing lacquer finish. Saves time, as the finish film will not require sanding or rubbing. Net weight 13 oz.

Gloss	S-F301*	\$7.50
Satin	S-F302*	\$7.50
Flat	S-F303*	\$7.50

MOHAWK TONE FINISH TONER Also known as shading of toning lacquer. This is an opaque, pigmented lacquer finish that will build a darker and darker color with subsequent coats. Best for duplicating the shading effect on the edges of cabinets. Should be top coated with clear after the desired color is achieved. Net weight 13 oz. Van Dyke Brown.

S-F305* \$7.50

MOHAWK ULTRA-CLASSIC TONER

Ultra-Classic Toners utilize a non-fading, non-bleeding dye to provide excellent clarity. Wood shades can be varied without imparting the "muddy" effect sometimes associated with pigment type toners. Get dye-based transparency with the highest rating of light-fastness available for dyes. Excellent flow out, Mar & alcohol resistant, No overspray. Net weight 13 oz.

Perfect Brown - A nice warm shade that is great match for 1930's and 1940's sets. S-F306* \$7.50

Walnut Brown - Use as a replacement for Burnt Umber. Great for late 1920's to early 1930's sets. S-F309* \$7.50



MOHAWK LACQUER SANDING SEALER

Helps fill grain pores on open grain woods and prevent blotchy absorption of penetrating stains on birch or maple cabinets or trim pieces. Seals end grain. 13 oz. aerosol can.

S-F304* \$7.50

"MICRO-MESH" PLASTIC RESTORATION SYSTEM

The most efficient system available for removing scratches and haziness from plastic radio cabinets and clear dial windows. Each kit contains 5 pieces of 3 x 6" Micro-Mesh cushioned abrasive cloth ranging from coarse to ultra-fine, foam sanding block, 3 oz bottle of Micro-Gloss liquid abrasive and a soft buffing cloth. Net weight 8 oz.

S-C228 \$20.95



PLASTIC POLISH

Novus No. 1—Cleans and glazes plastic surface to resist finger markings, dust build-up and is anti-static.

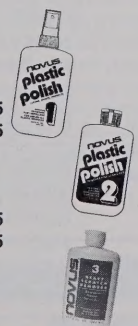
2 oz.	S-C216	\$2.25
8 oz.	S-C226	\$4.25

Novus No. 2—Removes fine scratches, abrasions and haziness from plastic surfaces. Great for plastic radio dial windows. For best results, follow with Novus No. 1 polish.

2 oz.	S-C217	\$2.75
8 oz.	S-C227	\$5.25

Novus #3—Removes scratches from acrylic surfaces. More abrasive than Novus #2. Effective for deeper scratches. Treatment must be followed by Novus #2 to buff and polish surface.

2 oz.	S-C215	\$3.50
8 oz.	S-C225	\$6.25



Buy every type of the 8 oz size bottles and receive 10% off the single piece price.

S-CPOLISH-SD \$14.15



NOTE: *Federal regulations prohibit us from shipping these products by air (noted with * after part number).



PLAS-T-PAIR

A complete repair kit for plastic knobs, radio cabinets and other plastic parts. It can be poured into a crack or molded to fill gouges, holes, or make parts. After setting it can be sanded, drilled or polished.

S-C244 \$9.95



TIBET ALMOND STICK

Wipes out scratches in wood radio cabinets quick-as-a-wink. Simply rub end of stick over scratches in any type of wood and watch them disappear like magic!

S-C243 \$3.95



"LACQUER STIK", WIPE ON PAINTSTICK Quick economical way to color engraved lines or stampings on metal, glass, plastics, etc. Works great for filling in markings on TRF radio dial knobs and faceplates.

White	S-F229	\$2.75	Gold	S-F230	\$3.75
Red	S-F437	\$2.75	Black	S-F438	\$2.75

WRINKLE FINISH

Great for refinishing vintage metal radio cabinets, faceplates and speakers. 12 oz. spray can.*

Jet Black	S-F227*	\$5.95
Grey	S-F701*	\$5.95
Brown	S-F226*(while supply lasts)	\$13.95



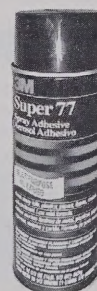
Hints for Wrinkle Finish paint: Surface must be clean and dry.

Clean means no oil, grease or fingerprints. Be sure that temperature of the paint can and the surface to be painted is between 70 and 90 degrees. Spray with even strokes at a distance of 8 to 12". Apply a fairly heavy coat. Spray a 2nd coat approximately 3 minutes after the 1st, also fairly heavy. The wrinkling will appear gradually, requiring about 12 hours at room temp to completely develop. **Tip:** experience seems to indicate that a better finish develops when sprayed onto bare metal.

TOLEX ADHESIVE 3M SUPER 77

spray adhesive ideal for bonding tolex (or any other cloth, foil, felt, paper, etc.) to plastics, painted or unpainted metals, wood, hardboard and many other materials. Provides high coverage (over 160 sq. ft. per can), faster, more aggressive tack, longer bonding range and lower soak-in. Two spray tips are provided, one for large bonding areas and the other for smaller bonding areas. 16½ oz. aerosol can.

S-F315* \$10.95



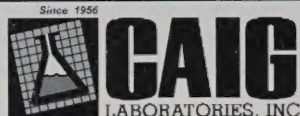
DO-IT-YOURSELF ELECTROPLATING!

Replate nickel, silver or brass radio and phonograph parts. Uses current from any 3 to 6 volt D.C. supply or batteries. Plating brush connects to positive voltage and part being plated connects to negative. Brush sold separately. 2 oz jar.

PLATING COMPOUND

Gold	S-F221	\$44.95
Brass	S-F222	\$4.95
Copper	S-F296	\$4.95
Nickel	S-F223	\$9.95
Silver	S-F224	\$16.95
PLATING BRUSH	S-F225	\$3.95

(instructions come with plating brush)



**All CAIG
products priced
below retail!**

DeoxIT™

DeoxIT dissolves oxides and sulfides that form on metal contact surfaces, removing these sources of resistance.

This restores the contact's integrity and leaves a thin (organic) layer that coats and protects the metals. Special additives prevent the dissolved oxides from re-attaching, keeping them in suspension and allowing them to be easily dispersed by the mechanical action of the contact.

DeoxIT's unique properties allow it to work on stationary and moving contacts and connectors with similar or dissimilar metals. Even when a treated connector mates with an untreated one, DeoxIT will migrate and coat the other. When connectors are separated, DeoxIT will re-coat the exposed metal surfaces.

DeoxIT's advanced formula contains deoxidizers, preservatives, conductivity enhancers, arcing and RFI inhibitors and anti-tarnishing compounds that significantly increase the performance and reliability of electrical components and equipment.



DeoxIT D5 SPRAY - Provides a light (5%) coating of DeoxIT liquid. 5 oz. (200 ml), flammable (until solvent evaporates), adjustable valve. No CFC's/HCFC's.

S-CD5S-6 \$8.50

DeoxIT D5 PEN APPLICATOR

100% Concentrate. Environmentally-safe, non-flammable, non-corrosive, non-toxic.



S-CD100P \$11.95

R5™ Power Booster

A unique liquid that improves the flow of electricity on metal

surfaces. The best solution for improving and preserving the performance of electrical connections. R5 Power Booster contains active ingredients that dissolve contamination on the metal surfaces, fill in the minute gaps in the metal surfaces and provide long lasting protection from future contamination. R5 re-seals the surfaces if they have been disturbed. On moving connectors/contacts, R5 re-coats moving metal surfaces, providing continued protection and reduced wear and abrasion.

Provides a light (5%) coating of R5 Power Booster liquid. 5 oz. (200 ml), nonflammable, adjustable valve.

NOTE: Since this package is nonflammable and non-pressurized, there are no shipping or handling restrictions.

S-CR5PS-6 \$22.95

PreservIT™

Seals, lubricates and preserves metal surfaces against oxidation and contamination. **USE ON:** clean/new surface or those cleaned with DeoxIT.

PreservIT contains no cleaners or deoxidizers. It provides long lasting protection for newly manufactured components or those cleaned by ultrasonics, DeoxIT or other procedures. Provides a light (5%) coating. 200 ml (5 oz.), adjustable valve, no CFC's or HCFC's.

S-CP5S-6 \$8.95

CaiKleen™

Rubber Cleaner and Rejuvenator - Precision cleaner for rubber and platens. Ideal for computers, printers, copiers, fax machines and other office and industrial equipment. Use on all rubber rollers, parts and platens. Rejuvenates rubber and reduces misfeeds and jams! Both items are 100% solution.

59 ml Squeeze Bottle
25 ml Precision Needle Dispenser

S-CRBR100L-2 \$8.95
S-CRBR100L-25C \$7.95



MOVING CONTACT LUBRICANT

This product is a precision lubricant for moving contact surfaces (faders, switches, potentiometers and other mechanisms with sliding surfaces). It replenishes lubrication lost on surfaces that have been cleaned with solvents or other cleaning solutions. 5% Spray, 5 oz. (200 ml).

S-CMCL \$8.95

CaiLube™

ProGold™

ProGold is specifically formulated to improve conductivity and provide long-lasting protection on gold, precious metals and their base metals. It conditions connectors, contacts, and other metal surfaces, thus enhancing the conductivity characteristics to efficiently transmit electrical signals. ProGold is the only product that will actually penetrate the plated surfaces and molecularly bond to the base metals to seal & protect them.

ProGold can be used on all metal surfaces and is formulated to remove minor amounts of oxidation caused by wear, abrasion or dendrite corrosion.

ProGold coats the entire contact surface and connection, providing superior protection from abrasion (insertion resistance), dendrite corrosion, arcing, RFI, wear, and atmospheric contamination.

ProGold is effective on stationary and moving contacts and connectors with similar or dissimilar metals. When a treated and untreated connector mate, ProGold migrates to coat both. When connectors separate, ProGold recoats both exposed metal surfaces.

ProGold's superior formula contains conditioners, deoxidizers, preservatives, conductivity enhancers, arcing and RFI inhibitors and anti-tarnishing compounds. These reduce intermittent connection problems and significantly increase the quality and reliability of electrical components and equipment.



PROGOLD G5 SPRAY - Provides a light (5%) coating of ProGold liquid. 5 oz. (200 ml), adjustable valve. No CFC's/HCFC's.

S-CG5S-6 \$13.95

PROGOLD PEN APPLICATOR

Environmentally-safe, non-flammable, non-corrosive, non-toxic.



S-CG100P \$15.95

ProGold™ GL

Extended temperature, longer-lasting formula, -45°C to 400°C. Field and lab tested to provide 10 years protection and service life without deterioration, gumming or varnishing. ProGold GL still provides superior lubrication, anti-tarnishing, conductivity enhancing and protection to metallic surfaces. It is ideal for use in electronics, automotive, marine and industrial applications where long term protection is needed. Ideal for vacuum tube pins and sockets!

Provides a light (5%) coating of ProGold liquid. 5 oz. (225 ml), adjustable valve. Nonflammable, fast evaporating carrier solvent that is safe on plastics.

S-CGX5S-6 \$25.95

FreezALL™

Cools Circuits To -54°C. Locates intermittent components (capacitors, resistors, transistors, etc.) due to heat failure, hairline cracks on printed circuit boards, and provides low temperature testing of electric circuits. Packaged with a precise one-piece trigger valve and extension tube for controlled application. Portable, precision filtered. 200ml / spray.

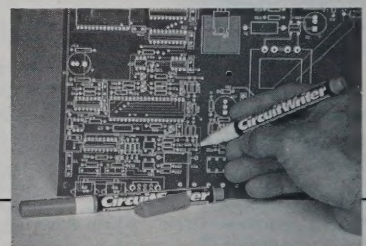
S-CFZ7PS-10 \$11.95



Circuit Writer precision conductive ink dispenser makes instant traces on most surfaces (epoxy, glass, metal). Draw traces on circuit boards, repair defective traces, make jumpers and shield electronics, design prototype circuits, repair rear-window heater traces. 7 ml pen dispenser.

S-CCW100P \$11.95

CircuitWriter™



Accessories

Foam Swabs

100% lint-free open cell urethane foam. Retains lubricant and solvent for light applications. Non-abrasive and chemical resistant. (6 pack)

S-CSWP-6 \$4.50

Cleaning Brushes

Nylon brush for cleaning contacts and connectors. Ideal for phone and phono (RCA), XLR, coax connectors and patchbays. (6 pack)

S-CAB-6 \$4.50

JIF ACTION

Cleans and provides long lasting protection for electronic controls, switches, relays, potentiometers and other components. Stops noise and squeaks. Contains silicone additive.

6 oz.	S-C19-634	\$3.95
16 oz.	S-C19-636	\$6.95

This item is great for antique radios!!

ANTI-STATIC AIRJET

Clean hard to reach places. Anti-static formulation minimizes static build-up. Blows away dust, dirt and grit without scratching. Contains no ozone depleting chemicals. Nonflammable. 12 oz. can

S-C19-8475SF \$8.45



RUBBER-TO-METAL CEMENT

A heavy-bodied, black rubber based cement with outstanding bonding qualities to many materials such as natural & synthetic rubber, metal, wood and plastics. Dries quickly. Used to cement any rubber or flexible plastic part to cabinets, chassis or panels; also for gaskets, weather strips, etc. 2 fluid oz bottle with brush.

S-C10-352 \$4.95

SERVICE CEMENT

A quick-drying waterproof clear adhesive which forms a strong vibration resistant bond. Ideal for speaker repairs and bonding semi-porous materials to each other or to metals, plastics, etc. 2 oz. bottle.

S-C10-302 \$4.95



GOLD GUARD PEN

The pen that cleans and lubricates gold and other noble metal contacts and connectors, extends the life of of noble metal contacts. Chisel tip marker for exact delivery of solvent to surface.

S-CCW7400 \$12.95

PEN OILER

High quality non-gumming instrument oil. Fine long-reaching metal tube extends and retracts. Use on timers, clocks, etc.



S-C10-984 \$3.95

BIG BATH

All purpose degreaser and cleaner for electrical contacts, switches, pc boards and components. Evaporates instantly and leaves no residue.

12 oz.	S-C19-902	\$6.95
22 oz.	S-C19-903	\$11.95



AERO 2000 FLUX REMOVER

Removes oil, grease and soldering fluxes. Very effective for cleaning activated fluxes and other ionic contaminants. Product may affect polystyrene, polycarbonate and acrylic parts, test for compatibility. 12 oz. can.

S-C11109 \$8.95



RUBBER REVITALIZER

Removes "dead" rubber from old rubber surfaces to clean and revitalize idler wheels, belts and pinch rollers. 1 oz. bottle.

S-C220 \$3.95



PHONO NON-SLIP

Prevents slippage and restores proper functions on belts and drive wheels in turntables and tape recorders, especially where the rubber has hardened or become slick. 2 fl. oz.

S-C10-8602 \$2.95



LUBRIPLATE



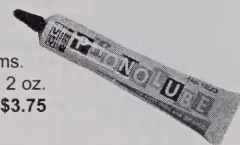
White calcium base grease lubricant. Good for use on wiping contacts and sliding parts. Will not oxidize or harden. 1 1/2 oz. tube.

S-C10-2302 \$3.95

PHONOLUBE

Light bodied grease made of polymerized oil specially developed for the lubrication of small geared mechanisms. Retains its viscosity over a wide range of temperatures. 2 oz. tube.

S-C10-1223 \$3.75



TERMINAL STRIPS

Standard size terminal strips, 1/8" thick bakelite, tin plated steel solder lugs and brackets on 3/8" centers. Sold in bags of 5 each except as noted.

SOLDER LUG STYLE

P-0300V

3 Lug, 0 Ground, Vertical

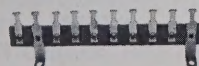


P-0802H

8 Lug, 2 Ground

2 lug 1 ground	P-0201H	\$1.50
3 lug 0 ground	P-0300V	vertical mount \$3.00
3 lug 0 ground	P-0300H	\$1.75
3 lug 1 ground	P-0301H	\$1.75
4 lug 1 ground	P-0401H	\$2.00
5 lug 0 ground	P-0500H	\$2.50
5 lug 1 ground	P-0501H	\$2.50
6 lug 0 ground	P-0600H	\$2.90
6 lug 1 ground	P-0601H	\$2.90
6 lug 2 ground	P-0602H	\$2.90
7 lug 1 ground	P-0701H	\$3.00
7 lug 2 ground	P-0702H	\$3.00
8 lug 2 ground	P-0802H	\$3.50
9 lug 1 ground	P-0901H	Limited Quantity \$4.50

WIRE WRAP STYLE



P-1002H 10 Lug, 2 Ground

4 lug 0 ground	P-0400H	\$1.75
7 lug 0 ground	P-0700H	\$2.75
10 lug 2 ground	P-1002H	each \$0.75
11 lug 2 ground	P-1102H*	\$3.50
30 lug 2 ground	P-3002H	each \$2.50

* 8 wire wrap; 3 solder lugs

EPOXY BOARD STYLE



P-1200 H 12 Lug, 0 Ground

12 lug 0 ground	P-1200H	each \$3.95
6 lug 0 ground	P-0600H-1	each \$2.50

POINT TO POINT TERMINAL BOARDS

These boards will aid the hobbyist or OEM in project building. They are built on copper clad epoxy board, the copper is used as the ground plane. Simply connect the component to the tube sockets then to a turret or to the ground plane. Wire your project on the board, off chassis, then install the board to chassis for a neat looking finish.

Features:

- Rigid high temperature (285°F continuous) epoxy board FR4 0.125" thick with 2/0 copper cladding.
- 0.500" standoffs.
- Solid brass electro solder plated terminals.
- Gold plated ceramic tube sockets.
- Mounting hardware and template included.

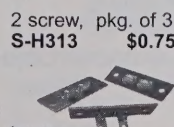


Single 9 pin miniature socket	P-PTP0108	\$8.95
Dual 9 pin miniature sockets	P-PTP0209	\$14.95
Single octal socket	P-PTP0109	\$8.95
Dual octal sockets	P-PTP0208	\$14.95

MISCELLANEOUS TERMINAL STRIPS



1 Screw
S-H319 \$0.50

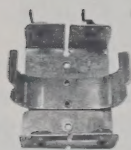


2 screw, pkg. of 3
S-H313 \$0.75

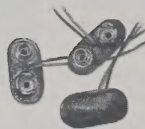


6 Screw
S-H317 \$0.50

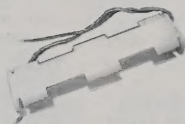
4 Screw, 2 1/8" x 1 1/8"
S-H318 \$1.00



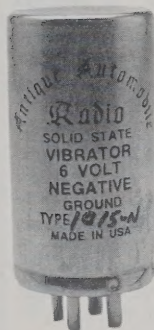
2 "C" CELL
BATTERY
HOLDER
S-H156 \$0.75



9 VOLT
CLIPS
pkg. of 3
S-H155 \$0.75



4-"AA"
CELL
HOLDER
S-H157 \$0.50



SOLID STATE VIBRATOR REPLACEMENTS

New manufacture solid-state replacements for 6 volt and 12 volt 3 and 4 pin vibrators. These replace our old line of solid state vibrators. 1 1/2" dia. x 2 1/4" high aluminum can. **Replace your buffer capacitor when you replace your vibrator!**

6V, 4 pin, neg. ground	P-V1015N	\$29.95
6V, 4 pin, pos. ground	P-V1015P	\$29.95
12V, 4 pin, neg. ground	P-V2015N	\$29.95
12V, 4 pin, pos. ground	P-V2015P	\$29.95
12V 3 pin, neg. ground	P-V2215N	\$29.95

BATTERY CONNECTORS Snap connectors for the Eveready battery No. 276, 455, and 467. Contains one set of male and female connectors. **While Supplies Last.**

- no leads, current production S-H153 \$1.25
- with leads, military NOS. S-H154 \$1.25

DIODES - A semiconductor device which passes current in the forward direction (from anode to cathode), and blocks current in the opposite direction.

1N4005	1A	600V	P-Q1N4005	\$0.28
1N4007	1A	1000V	P-Q1N4007	\$0.28
1N5404	3A	400V	P-Q1N5404	\$0.45
6A05	6A	50V	P-Q6A05	\$0.95

ZENER DIODES - A semiconductor device that, above a certain reverse voltage (the zener value) has a sudden rise in current. If forward biased, the diode is an ordinary rectifier. When reverse biased, it exhibits a sharp break in its current-voltage graph. Voltage across the diode remains essentially constant for any further increase of reverse current.

1N4741A	1W	11V	P-Q1N4741A	\$0.32
1N4748A	1W	22V	P-Q1N4748A	\$0.32

FAST RECOVERY DIODES

1N4937	1A	600V	P-Q1N4937	\$0.32
FR107	1A	1000V	P-QFR107	\$0.32

SILICON RECTIFIER	750MA	600PIV
While Supply Lasts	P-Q974	\$.28 each

HEXFRED DIODES - High performance, ultrafast diodes. Improve efficiency, reduce noise, allow higher frequency operation.

HFA08TB60	8A	600V	P-QHFA08	\$2.75
HFA16TA60C	16A	600V	P-QHFA16T	\$3.95
HFA16PB120	16A	1200V	P-QHFA16P	\$9.50

BRIDGE RECTIFIERS - A full wave rectifier with 4 elements in a bridge circuit so that DC voltage is obtained from one pair of junctions when an AC voltage is applied to another pair of junctions.

BR-34	3A	400V	P-QBR-34	\$1.50
BR-62	6A	200V	P-QBR-62	\$2.25
BR-81	8A	100V	P-QBR-81	\$2.25
BR-84	8A	400V	P-QBR-84	\$2.75
BR-104	10A	400V	P-QBR-104	\$2.75
BR-2505	25A	50V	P-QBR-2505	\$5.75

GERMANIUM DIODES - 1 N34A point contact germanium diodes, ideal for crystal radio detectors.

While Supply Lasts	P-Q972	\$1.00
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EVEREADY BATTERIES

The following Eveready batteries are useful for powering portable radios like the Zenith Transoceanic, subminiature tube radios, and early transistor radios. The S-Z415 is used in our K-406 Regenerative Radio Kit.

PART	NO.	VOLT.	SIZE(")	PRICE
S-Z276	276	9	2.56 x 2.03 x 3.16	\$14.95
S-Z412	412	22 1/2	1.05 x 0.63 x 1.80	\$7.95
S-Z415	415	45	1.05 x 0.63 x 3.69	\$14.95
S-Z455	455	45	2.66 x 1.00 x 3.69	\$22.95
S-Z416	416	67 1/2	1.25 x 0.94 x 3.38	\$22.95
S-Z467	467	67 1/2	2.81 x 1.38 x 3.71	\$30.95

We have a very limited inventory of phonograph parts. If you don't see what you want here, try West-Tech Services in Tennessee at 888-828-8455.



MOTOR MOUNTING GROMMETS

Rubber grommets for mounting phonograph motors measure 1/2" dia., 1/8" high, and 1/4" inner dia. Pkg. of 9 P-R407 \$4.25



"C" WASHER ASSORTMENT

Contains 25 of the most popular sizes!
S-H401 \$1.75

SPINDLE

Universal 45
S-P100 \$4.25



TONE ARM CARTRIDGE SCREW ASSORTMENT

S-P001 \$0.30



PHONO PICK-UP WIRE

Fine extra flexible 4 conductor, color-coded cable, 5 ft. long. S-WL3-644 \$5.95



CONVENTIONAL PHONOGRAPH NEEDLES

For all set screw and thumb screw cartridges. Straight steel needles, good for 12 plays each.

Pkg. of 25	S-P119	\$2.00
Osmium, 78 RPM, 3 ml radius	S-P163	\$1.80



Needle, replacement for Sonotone 2T, 5T and 7T cartridges, mono.
S-P994 \$9.95



Needle, replacement for Pickering - PD07/T, PAC, P/AC-1. 0.7D mil diamond stereo.
S-P977 \$10.95



PHONO CARTRIDGE CONNECTOR ASSORTMENT S-P002 \$1.00

REPLACEMENT NEEDLES - WHILE SUPPLIES LAST!!

PART NO.	TYPE	SPEED	CARTRIDGE USED IN	PRICE
S-P999	Crystal Sapphire	33-45-78	Arista/Astatic	\$3.50

COLOR BURST CRYSTAL

RCA type 3, 3579.545 kc. Excellent for ladder filters.

S-MCBX

\$0.25

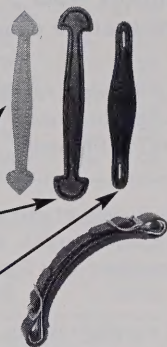


LEATHER REPLACEMENT HANDLES

FOR EARLY RADIOS Genuine leather handles fit many Zenith, Philco and Emerson portable radios, as well as other brands. Includes metal brackets and rivets.

BRACKET

SPACING	COLOR		PRICE
4.5" to 5.5"	Brown	P-H254	\$14.95
4.5" to 5.5"	Black	P-H255	\$14.95
5" to 6"	Brown	P-H256	\$14.95
5" to 6"	Black	P-H257	\$14.95
5.5" to 6.5"	Black	P-H258	\$19.95



Direct replacement for early RCA portables! Leather with steel reinforced handle, 6 1/4" spacing, brown.

P-H259

\$21.95

BRAIDED COPPER TUBING

Ideally suited for shielding, bonding and grounding of all types of electronic equipment. Available in 2 lengths.

3/16" x 3' length	S-W409	\$1.50
3/16" x 6' length	S-W410	\$2.75



SHIELDING BRAID

Shielding braiding, tubular, 1/2" dia.

S-W411

\$1.50 / ft.



SLEEVING

3/4" expando-mesh, sold by the foot.

S-M100

\$1.25 / ft.



OLD STYLE SPAGHETTI

Black fiberglass sleeving is varnished and closely resembles early style spaghetti. Available in 2 sizes.

Minimum 10 feet per size.

20 AWG	S-M436	per ft. \$0.50
11 AWG	S-M401	per ft. \$0.60

SPAGHETTI ASSORTMENT

9" lengths of insulating sleeving in assorted colors and sizes from No. 24 through 3/8". Includes old style varnished as well as plastic and fiberglass types. Pkg. of 25

S-M550

\$2.50

INSULATING CAMBRIC

Yellow varnished cambric .010" thick, used in transformers, field coils, chokes, etc. Dielectric strength 5,000 volts. 9" wide roll contains 210 sq. inches.

S-M549

\$5.25

FISH PAPER

Gray insulating paper .010" thick, used in switches, under terminals, in transformers, etc., where mechanical strength is required. Dielectric strength 3000 volts. 9" wide roll contains 250 sq. inches.

S-M560

\$4.95

PLASTIC BAGS PROTECT VALUABLE LITERATURE!

9" X 12" .0015 gauge clear flat plastic bags are ideal for protecting and displaying early magazines, pamphlets, booklets, literature, etc. Package of 100 bags.

S-B703

\$6.95

HEAT SHRINK TUBING ASSORTMENT

Assortment of 2" heat shrink in many colors and sizes. Shrinks to 50% of it's original size.

S-M14

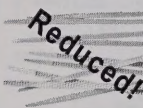
\$1.50



HEAT SHRINKABLE PVC TUBING

Shrinks to half it's original size when heated by heat gun, soldering iron or just a match. Use for insulating terminals, connectors and wire splices. Comes in 6" lengths and quantity shown.

ORIG. DIA.	QTY./BAG	PART NO.	PRICE
.125"	30	S-M12-1044	\$4.50
.187"	27	S-M12-1046	\$4.50
.250"	23	S-M12-1048	\$4.50
Assorted	23	S-M12-1080	\$4.50



CABLE TIES

3 1/2" long, pkg. of 10
S-H376 **\$0.25**

SMALL

WIRE NUTS

Great for hobbyists, pkg of 12
S-H408 **\$0.35**



TENSION SPRINGS

Use for dial drive or turntable.

S-H400 pkg. of 10 **\$1.00**



HEDLOCK FASTENERS

These super sturdy fasteners are great for speaker covers or helping prevent earthquake damage. 4 sets of 2 clips (package of 8).

S-SJ-3201

\$1.60



FIBER WASHER ASSORTMENT

S-H402 **\$0.75**



FAHNESTOCK CLIP

Spring clip 3/4" long for up to 14 ga. wire. No. 6. mounting hole. **While Supplies Last**

S-H11-4034

Pkg. of 100 **\$11.95**

S-H11-4043-6

Pkg. of 6 **\$1.00**



SNAP-LOCK WIRE TIE CLIPS

S-H377 Pkg of 20 **\$0.25**



DECORATIVE HEAD SCREWS

Decorative head screws, like used for speaker mounting on 1930's vintage radio cabinets. #8-32, 1 1/2" long. **Sold in packages of 4.**



Nickel Plated
Brass Plated
Bronze Plated
Unplated
Nickel Plated

P-H240
P-H241
P-H242
P-H243
P-H244

\$3.00
\$3.00
\$3.00
\$3.00
\$3.00



P-H240



P-H241
P-H242
P-H243
P-H244



ANTENNA CLIP

1/8" diameter
S-H303

\$0.25

QUICK CONNECT TERMINALS (While Supplies Last!)



Push on female solder terminal. Pkg 12.

S-H370

\$0.45



Solder ring terminals. Pkg 12.

S-H371

\$0.45



Push on male & female. Pkg 12.

S-H372

\$0.60



#8 open end spade. Pkg of 20.

S-H373

\$0.75



Rivet or bolt mount. Mates with S-H370 Pkg of 24.

S-H374

\$0.75



Spring loaded. Pkg of 25.

S-H375

\$0.85

**Pan Head Phillips Machine Screws,
Zinc Package of 5**

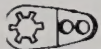
Part No.	Size	Price
S-HS440-14	4-40 x 1/4"	\$0.30
S-HS440-38	4-40 x 3/8"	\$0.30
S-HS440-12	4-40 x 1/2"	\$0.35
S-HS632-14	6-32 x 1/4"	\$0.35
S-HS632-38	6-32 x 3/8"	\$0.40
S-HS632-12	6-32 x 1/2"	\$0.40
S-HS832-38	8-32 x 3/8"	\$0.45
S-HS832-12	8-32 x 1/2"	\$0.50
S-HS832-34	8-32 x 3/4"	\$0.50
S-HS1032-12	10-32 x 1/2"	\$0.75
S-HS1032-34	10-32 x 3/4"	\$0.90
S-HS1032-1	10-32 x 1"	\$0.90

**"C" WASHER
ASSORTMENT**

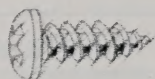
Contains 25 of the most popular sizes!
S-H401 \$1.75

**SOLDER/GROUND
LUGS**

S-H112 Pkg/10
\$1.95

**Pan Head Self Tapping Screws, Zinc Package of 5**

Part No.	Size	Price
S-HST6-38	#6 x 3/8"	\$0.40
S-HST8-38	#8 x 3/8"	\$0.50
S-HST8-12	#8 x 1/2"	\$0.50

**SHEET METAL SCREW PACKS** Cadmium plated screws, hex head, ideally suited to all electronic devices. At least 15 pc/pkg.

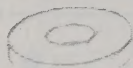
S-H351	8-32 x 1/2"	\$0.50
S-H352	8-32 x 3/8"	\$0.50
S-H353	8-32 x 3/4"	\$0.50

**#10 MACHINE SCREWS**

Ideal for transformer mounting, Pkg. of 4
P-H245 \$1.00

**Flat Washers, Zinc, Type A Narrow Package of 5**

Part No.	Size	Price
S-HW4	#4	\$0.30
S-HW6	#6	\$0.30
S-HW8	#8	\$0.30
S-HW10	#10	\$0.30

**Internal Tooth Lock Washers, Zinc Package of 5**

Part No.	Size	Price
S-HLW4	#4	\$0.40
S-HLW6	#6	\$0.40
S-HLW8	#8	\$0.40
S-HLW10	#10	\$0.45

**Finished Hex Nuts, Zinc Package of 5**

Part No.	Size	Price
S-HHN440	4-40	\$0.30
S-HHN632	6-32	\$0.30
S-HHN832	8-32	\$0.30
S-HHN1032	10-32	\$0.30

**T-Nut, Zinc Package of 5**

Part No.	Size	Price
S-HTN632	6-32	\$1.00
S-HTN832	8-32	\$1.00
S-HTN1032	10-32	\$1.00

**ALLIGATOR CLIPS**

Will accept bare wire or standard banana plugs.

- Insulated barrel, box/10 S-H301-103 \$3.00
- Plain, pkg. of 4 (not pictured) S-H302 \$0.50

**CIRCUIT BOARD MOUNTING BRACKET**

1/8", Pkg. of 4

P-H197 \$0.50

Limited to stock on hand

**VIBRAPOD THE AFFORDABLE VIBRATION ISOLATORS**

Enhance your listening sessions! These affordable vibration isolators improve bass definition and depth, dynamics, imaging, detail resolution, ambiance, clarity and sound stage. 4 different models support from 2 to 28 pounds each. All are 2 1/2" dia. x 3/16" high. Temperature range from 50°F to 100°F.

\$6.00 Each

Model 1 has a weight range of 2 to 3 pounds each, recommended weight is 2 1/2 pounds. Suggested uses: CD, DVD, Laserdisc Players & Transports, DSS receivers, DAC's, Preamps, Amplifiers and Speakers up to 32 pounds.

S-VIBRA1

Model 2 has a weight range of 4 to 8 pounds each, recommended weight is 6 pounds. Suggested uses: CD, DVD, Laserdisc Players & Transports, DAC's, Preamps, Amplifiers and Speakers from 24 to 72 pounds.

S-VIBRA2

Model 3 has a weight range of 8 to 12 pounds each, recommended weight is 10 pounds. Suggested uses: Heavy Amps or Speakers, units over 72 pounds.

S-VIBRA3

Model 4 has a weight range of 14 to 18 pounds each, recommended weight is 16 pounds.

S-VIBRA4

Model 5 has a weight range of 22 to 28 pounds each, recommended weight is 25 pounds. Suggested uses: Extremely Heavy Amps or Speakers, units over 200 pounds.

S-VIBRA5

RUBBER CHASSIS MOUNT WASHERS

Gum rubber chassis mounting washers as used on thirties vintage Zenith

and Philco radios. Allows proper dial centering in cabinet opening. P-H182

and P-H187 have adhesive backing

for laminating to other washers to

increase thickness. 1/4" inner diameter.

1 1/4" dia. x 1/8" thick	P-H182	\$1.00 ea.
1 1/4" dia. x 1/4" thick	P-H183	\$1.00 ea.
7/8" dia. x 1/8" thick	P-H185	\$0.90 ea.
7/8" dia. x 1/4" thick	P-H186	\$0.90 ea.
1 1/4" dia. x 3/8" thick	P-H187	\$1.75 ea.

RUBBER BUMPERS AND FEET

Screw on type. Screws not included, package of 4.

1/2" dia. x 1/4" high	P-H1308	\$1.50
5/16" dia. x 3/8" high	P-H253	\$2.20

Self-adhesive backing. Package of 20.

1/8" H x 1/2" O.D.	P-H16-150	\$4.00
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Button Bumpers. Package of 4.

7/16" dia. x 3/16" high	P-H1309	\$1.50
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Recessed Bumpers. Package of 4.

3/4" dia. x 1/2" high	P-H2082	\$2.40
3/8" dia. x 1/2" high	P-H2082S	\$2.90
1" dia. x 1" high	P-H2097	\$6.50
1" dia. x 1" high	P-H2097S	\$7.00

"S" after part number means steel washer insert.

MOTOR MOUNTING GROMMETS

Rubber grommets for mounting phono-

graph motors measure 1/2" dia., 5/16" high,

and 1/4" inner dia. Pkg. of 9

P-R407 \$4.25



RUBBER GROMMETS Protect electrical wires and cables from sharp edges in holes drilled through chassis boxes. Groove is 1/16" wide on all grommets listed. Pkg of 5.

CHASSIS HOLE DIA.	GROMMET HOLE DIA.	PART NO.	PRICE
1/4"	1/8"	P-G014	\$1.00
3/8"	1/4"	P-G038	\$1.25
5/16"	3/16"	P-G516	\$1.00
3/16"	3/16"	P-G516A	\$1.00
7/16"	1/2"	P-G716	\$1.50
7/16"	3/8"	P-G717	\$1.95
1/2"	3/8"	P-G005	\$1.30



RCA PHONO JACKS

Female chassis mount jacks, available in nickel or gold plated finish. Nickel plated comes in package of two, has no color banding; gold plated sold individually, have color band shown and are available in front panel or rear panel mount. Gold connections provide optimum performance.

	Nickel (While supplies last)	S-H30-528	pkg./2	\$1.75
	Gold, black band, front mount	S-H267B	ea.	\$4.25
	Gold, red band, front mount	S-H267R	ea.	\$4.25
	Gold, white band, front mount	S-H267W	ea.	\$4.25
	Gold, black band, rear mount	S-H268B	ea.	\$4.25
	Gold, red band, rear mount	S-H268R	ea.	\$4.25
	Gold, white band, rear mount	S-H268W	ea.	\$4.25

RCA PHONO PLUGS

Male plug to match with above jacks. Ceramic body with Gold Plating. Available with red or black color band.

Red	S-H331R	\$3.95
Black	S-H331B	\$3.95

BANANA PLUG

Internal stud for solder or solderless connection. Body is hex brass, tip is four leaved, phosphor bronze, nickel or gold plated spring.

Red (Nickel)	S-H33-032	\$1.50
Black (Nickel)	S-H33-033	\$1.50
Red (Gold screw type)	S-H264R	\$2.50
Black (Gold screw type)	S-H264B	\$2.50

DUAL BANANA PLUG

Mates with standard dual binding posts with 1/4" centers and can be staked for multiple connections. Polarity is indicated by rib. Nickel or gold plated, screw connection.

Red, nickel plated, While Supply Lasts	S-H33-010	\$2.50	
Black, nickel coated, While Supply Lasts	S-H33-011	\$2.50	
Red, gold plated	S-H265R	\$3.50	
Black, gold plated	S-H265B	\$3.50	
Black & Red, heavy duty gold	S-H269	\$4.95	

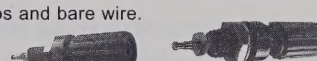
DUAL BINDING POST

Red and black posts, accepts either single or dual banana plugs. Mounts in two 1/4" holes on 1/4" centers, panel thickness up to 1/4". 15A rating, gold plated contacts.

S-H263 \$3.95

INDIVIDUAL BINDING POSTS

Accepts standard banana plug, test and phone tip plugs, spade lugs, alligator clips and bare wire.

Red	S-H2131R	\$0.95	
Black	S-H2131B	\$0.95	

INSULATED BINDING POSTS

Accepts standard banana plug, test and phone tip plugs, spade lugs, alligator clips and bare wire. One red and one black per package. Available in Nickel and Gold plated.

Nickel plated, red/black, while supplies last	S-HF2-930	\$4.50
Gold plated, red	S-H266R	\$2.75
Gold plated, black	S-H266B	\$2.75



EARLY STYLE BINDING POST An exact reproduction of an early Philmore binding post. Precision machined from brass, nickel plated, 1/4" x 3/8" high, with screw.

S-H159 \$2.50

INSULATED DELUXE TIP JACK

For standard .080" tip plug. Machined contact with turret terminal. Brass body, silver finish. 10A rating For panels up to .437" thick.

Red	S-H260	\$1.50
Black	S-H261	\$1.50

IN-LINE QUAD PHONO JACK

S-H314 \$0.60



SQUARE QUAD PHONO JACK

S-H311 \$0.50

SHORTED UNIT

PHONO JACK

8 RCA jack panel mount strip with common copper grounding strip. S-H315 \$0.50

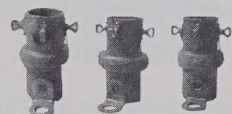


UNIVERSAL REPLACEMENT COILS Will replace broadcast band coils in any tube type radio. Adjustable inductance for perfect tracking. Mount on bus wire leads or in 1/8" hole. Coils are similar to Miller numbers that correspond.

DESCRIPTION	PART NO.	PRICE
Antenna Coil	P-C70-A	\$7.50
Oscillator Coil	P-C70-OSC	\$7.50
RF Coil	P-C70-RF	\$7.50

Oscillator Coils

3 Lug, 225 uHY	P-C76	\$2.95
3 Lug, 142 uHY	P-C78	\$2.95
4 Lug, 125 uHY	P-C77	\$2.95



DOUBLE PHONO JACK

S-H310 Pkg. of 2 \$1.00



RCA DUAL PATCH CORDS

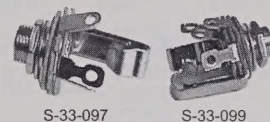
6' dual cables for line in/out for VCRs, tuners, pre-amps, etc. Red & black plugs. S-H270 \$1.00



1/4" PANEL MOUNT PHONE JACKS

Nickel silver spring, nickel plated brass mounting bushing. Mounts in 1/4" hole.

3 conductor, stereo	S-H33-099	\$1.95
2 conductor, shorting	S-H33-097	\$1.50



BANANA JACKS,

Recessed, Pair

S-H404-137

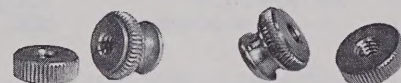
\$1.50



ATWATER KENT BINDING POST NUTS

Two sizes, each has one flat nut and one scalloped nut.

Small (3/8" dia.) 6-32 threads	P-H601	\$3.95
Large (7/8" dia.) 8-32 threads	P-H602	\$4.95



3.5 MM PLUG

Screw off barrel to access solder lugs. Package of 5.

S-H262 \$1.50



PHONE PLUG Standard 1/4" two conductor phone plug. With screw connections for headphone pins, etc. Black plastic handle. S-H33-622 \$1.00



PHONE PLUG 1/4" two conductor phone plug, with solder connections.



black plastic chrome	S-H256	\$1.75
	S-H257	\$2.00



PHONE TIP

Standard .080" pin with .136" solder cup. Hollow tip, nickel-plated. Pkg. of 10 S-H33-156 \$6.50



ANTENNA COILS

650 uH, 4 1/4" x 1 1/2" ferrite P-C75 \$4.95



250 uH; 3.5" x 3/8" ferrite P-C73 \$4.95

270 uH P-C74 \$4.95



230 uH 4 1/4" x 1 1/2" ferrite P-C72 \$4.95



FERRITE RODS

Rods are made of 61 Ferrite material, and have a broadcast band of 640KC to 1650KC.

.375" ± 0.020" dia. x 5.00" ± 0.100" long	P-FR1	\$8.95
.375" ± 0.020" dia. x 7.50" ± 0.150" long	P-FR2	\$9.95

If you don't see the size you need, we have a limited stock of NOS rods, just ask!!

PHONE PLUG - SUBMINIATURE, .097", SOLDER LUGS, RED HANDLE

W-SC-855 \$1.60



PHONE JACK - ENCLOSED, DOUBLE OPEN CIRCUIT

W-SC-112B \$2.00



PHONE JACK - 1/4", ISOLATED MAKE CIRCUIT

W-SC-13 \$3.20



DIN RECEPTACLE - 5 CONTACTS @ 240°, SOLDER LUGS, FOR LOCKING PLUG

W-SC-61HA5F \$3.20



PHONE JACK - 1/4", TRANSFER CIRCUIT, 2 CONDUCTOR

W-SC-13A \$3.20



ADAPTER - BNC TO 1/8"

W-SC-BV-MP \$2.00



PHONE JACK - 1/4", TIP SHUNT, 3 CONDUCTOR

W-SC-13B \$3.20



PHONE JACK - 1/4" ENCLOSED, CLOSED OPEN CIRCUIT, .375" LONG BUSHING

W-SC-L-114B \$2.40

DIN RECEPTACLE - 4 CONTACTS @ 210°, SOLDER LUGS

W-SC-60GA4F \$3.00



DIN PLUG - STRAIGHT, 5 CONTACTS AT 180°

W-SC-06AL5F \$4.00



JACK - TELEPHONE, LONG FRAME, DOUBLE CLOSED CIRCUIT, EQUAL TO WECO 239C

W-SC-CMT334B \$6.40



PHONE JACK - 1/4", 3 CONDUCTOR

W-SC-2A \$1.20



SWITCH - "BUTTON" MOMENTARY, SPDT, BLACK BUTTON, .25A, 30W MAX

W-SC-933 \$2.80



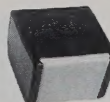
DIN PLUG - STRAIGHT W/SHIELDED BARREL, 5 PINS AT 240°

W-SC-12GM5M \$4.00



PUSHBUTTON - FOR SWITCHCRAFT MULTIPLE STATION SWITCHES, ILLUMINATED WHITE

W-SC-40005 \$1.60



MICROPHONE CONNECTOR

W-SC-2504FP \$6.40



PHONE JACK - 1/4" ENCLOSED, 2 CONDUCTOR, INSULATED BUSHING

W-SC-N111 \$1.60



MICROPHONE CONNECTOR - 1/8"-27 THDS, 1/32" MAX. CABLE DIAMETER

W-SC-2501M \$2.80



SWITCH - SLIDE, SPST LOCKING, PC MOUNT

W-SC-46202LR-PC \$1.60



PHONE JACK - 1/4", DOUBLE OPEN CIRCUIT

W-SC-12B \$1.60



PHONE JACK - 1/4" ENCLOSED, 2 CONDUCTOR, .375" BUSHING

W-SC-L-111 \$2.40



DIN RECEPTACLE - 5 CONTACT @ 240°, SOLDER LUGS

W-SC-61GB5F \$3.00



PHONO JACK - SINGLE

W-SC-351Z \$1.20



PHONE PLUG - 1/4" FLAT, 2 CONDUCTOR, PLASTIC HANDLE, SOLDER LUGS

W-SC-227 \$3.20



DIN PLUG - STRAIGHT, 5 PINS @ 240°

W-SC-12BL5M \$4.00



DIN RECEPTACLE - 3 CONTACT @ 180°, SOLDER LUGS, FOR LOCK RING PLUG

W-SC-57HA3F \$3.20



SWITCH - "BUTTON" MOMENTARY, SPDT, RED BUTTON, .25A, 30W MAX

W-SC-923 \$2.40



LITTLE-JAX - SINGLE OPEN CIRCUIT

W-SC-11 \$1.60



PHONE JACK - ENCLOSED, SINGLE CLOSED CIRCUIT

W-SC-N113B \$2.00



ADAPTER - 2 CONDUCTOR, TINI-PLUG (.141") OUTPUT TO PHONO JACK INPUT

W-SC-370A \$2.40



ADAPTER - 1/8" FEMALE TO 1/8" FEMALE PHONE JACK

W-SC-MJ-BL \$2.00



DIN PLUG - STRAIGHT W/LOCK RING, 5 PINS AT 240°

W-SC-12CL5M \$6.40



DIN RECEPTACLE - 8 CONTACTS @ 270°, SOLDER TERMINALS

W-SC-62GB8F \$3.00



SWITCH - PUSHBUTTON, MOMENTARY, 2 SINGLE POLE, 5A RATING

W-SC-4004 \$6.40



PHONE JACK, 1/4" ENCLOSED, CONDUCTOR, DOUBLE CLOSED CIRCUIT

W-SC-114B \$2.40



DIN PLUG, STRAIGHT W/ LOCK RING, 8 PINS AT 270°

W-SC-15CL8M \$6.40



SWITCHCRAFT • CONTINUED

SWITCH - ILLUMINATED, 3 POSITION, N.O. SPDT, 1 LOCK, 1 NON LOCKING POSITION

W-SC-27307L \$4.00

JACK - TELEPHONE, LONG FRAME, TWIN JACK, EQUAL TO WECO 410A, C AND D

W-SC-MT-388 \$8.00

DIN PLUG - STRAIGHT W/ LOCK FLANGES, 5 CONTACTS @ 240°

W-SC-13EL5F \$4.00

DIN RECEPTACLE - 4 CONTACTS @ 210°, SOLDER LUGS, FOR LOCK RING PLUG

W-SC-60HA4F \$3.20

EXTENSION JACK - 1/4", 2 CONDUCTOR, SCREW TERMINAL, SHIELDED HANDLE

W-SC-120 \$5.60

DIN RECEPTACLE - 7 CONTACTS @ 270°, PC MOUNT

W-SC-62PC7F \$2.40

OTHER SWITCHES

ROCKER SWITCH 3A, 125VAC, DPDT. Pkg of 2

P-H38 \$1.00



ROCKER SWITCH

DPST, 5A 250VAC, 10A 125VAC, fits in 1" square panel hole.

P-H484 \$1.00



"NOBLE" POWER SWITCH

P-H483 \$1.50



"SHADOW" POWER SWITCH Black - off, Green - on

P-H482 \$1.00



SWITCH BANK 3 POSITION

P-H03 \$1.00

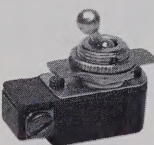


TOGGLE SWITCHES

Choose from two styles of toggle switches. Ball handle (pictured) is SPST, 6A-125V rated. Other is heavy duty, standard "bat" handle, DPDT (on-none-on), 20A-125V rating. Both mount in 1/2" hole. Screw connections.

Ball Handle SPST P-H35-170 \$3.50

Bat Handle DPDT P-H35-146 \$5.50



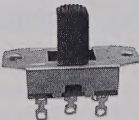
SLIDE SWITCHES

Standard size slide switches, cadmium plated solder connections. 125V AC-DC, Pkg. of 2.

SPST P-H36 \$1.00

SPDT P-H37 \$1.00

11A-125VAC, 5A-125VDC, DPDT P-H35-242 \$1.50



ROTARY SWITCHES 0.3A - 125V current rating, contact and terminal material are silver plated phosphor bronze. 5 position, 2 pole, non-shorting. 1/4" round shaft, solder connections.

S-H35-377 \$5.25

Also available (While Supplies Last)

Chassis mount rotary switches, 1/4" shaft

3 pole, 4 position P-H034 \$2.50

4 pole, 3 position P-H043 \$2.50

And... Double on-off rotary (DPST) P-H0201 \$2.00



FANS TO KEEP GEAR COOL



Fan, 12VDC, 4.5" DIA S-FAN02 \$4.00

Sanyo brushless DC fan. 2 1/4" dia x 1" thick, 12vdc, 70ma.

S-FAN01 \$2.00



ETRI high quality fan. 3.6" dia x 1" thick, 115vac, 65ma. 1700 rpm, 21 cfm. With wire form fan guard and detachable power cord

S-99XM \$12.95

FUSES

1/4" x 1 1/4" FUSES Protect your expensive investment or hobby with inexpensive fuses. Fits fuse block and fuse holder below. Package of 5 fuses.

FAST ACTING

AMPS	PART NO.	PRICE
1/4	F-ZF005	\$3.00
1	F-ZS010	\$3.00
1 1/2	F-ZF015	\$3.00
3	F-ZF025	\$3.00
4	F-ZF035	\$3.00
5	F-ZF040	\$3.00
10	F-ZF050	\$3.50

SLO-BLO

AMPS	PART NO.	PRICE
1	F-ZF010	\$4.25
2	F-ZS020	\$4.25
3 2/10	F-ZS030	\$4.25
4	F-ZS035	\$4.25
5	F-ZS040	\$4.25
6 1/4	F-ZS045	\$4.25

WE ALSO HAVE 3AG, 1/4 AMP FUSES, PKG. OF 5 F-3AGD25 \$1.00



FUSE BLOCK

S-H259 \$2.25

FUSE HOLDER

S-H258 (1/2" dia. chassis hole) \$1.95



IN-LINE FUSE HOLDER

S-H254 \$1.00

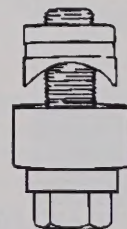


• TOOLS • TOOLS • TOOLS •

GREENLEE CHASSIS PUNCHES

Round hole punches for use in mild steel up to 16 gauge. Make professional chassis punches on your projects. Absolutely no returns unless punch is defective!

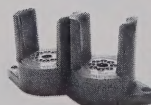
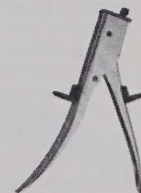
HOLE DIA.	PART NO.	PRICE
1/2"	S-T703012	\$31.95
5/8"	S-T703058	\$34.95
1 1/8"	S-T7031116	\$35.95
3/4"	S-T703034	\$41.95
1"	S-T703100	\$43.95
1 1/8"	S-T703118	\$46.95
1 1/4"	S-T703114	\$46.95



DELUXE NIBBLING TOOL

Cuts metal and non-brittle plastic. Will cut any size and shape of hole from the edge or from a 1/8" inside hole. Cuts steel up to 18 gauge as well as copper, brass, aluminum and plastics up to 1/16". Spring operated.

S-T806 \$9.95



TUBE PIN STRAIGHTENER

7 and 9 pin straightener, mounts on work bench. Limited quantity.

S-T8655 \$7.95

CONTACT BURNISHING TOOL

Stainless steel strip, microscored to an ultra-fine file surface. Re-move oxide and corrosion on contacts made of platinum, palladium, molybdenum, gold, tungsten and silver.

S-T9338 \$2.00

SOLDERING IRON

30 watt AC/DC just the right size for electronic work. $\frac{1}{32}$ " dia. replaceable tip. UL approved. 6 oz.

S-T120 \$8.95

REPLACEMENT TIPS $\frac{1}{32}$ " dia.

S-T121 \$1.50

SOLDER AID TOOL

Stainless steel, solder will not stick. $6\frac{1}{2}$ " long with plastic handle. Forked tip on one end, straight reamer on the other.

S-T9075 \$3.95

SOLDER

60/40 rosin core type in convenient, clear plastic, self-feed dispenser.

Standard .050" dia., $6\frac{1}{2}$ ft. length **S-TH3-390 \$2.95**
 Fine Line .032" dia., 12 ft. length **S-TH3-391 \$3.50**
 60/40 rosin core, .050" dia. in 1 lb spool. **S-T9000 \$13.50**

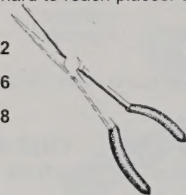
**DESOLDERING BRAID**

Made of finely-woven copper braid impregnated with pure rosin flux, for high efficiency and maximum solder holding capacity. 5 foot dispenser spool.

.08" wide **S-T22-405 \$2.95**
 .15" wide **S-T503 \$4.95**

LONG REACH PLIERS - Great for getting into hard to reach places. While Supplies Last

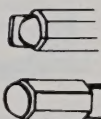
11" Long Reach, Long Nose Pliers **S-T56922 \$10.95**
 11" Long Reach, 45° Bent Nose Pliers **S-T56926 \$10.95**
 11" Long Reach, 90° Bent Nose Pliers **S-T56928 \$10.95**

**DOUBLE END HEX TOOL**

Molded from Delrin, $5\frac{1}{2}$ " long. Ends are .125 hex with .10" wide by .02" thick plastic screw driver on one end.

S-T9091 \$1.95

Same as above, with .100" hex. **S-T702 \$2.25**

**DUPLEX ALIGNER**

Butyrate shaft $6\frac{1}{8}$ " long with $\frac{1}{8}$ " wide steel tips. Tip on one end recessed.

S-T8276 \$2.50

**3-IN-1 HEX CORE TOOL**

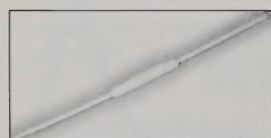
Molded from Celcon, $5\frac{1}{16}$ " long. Stepped hex .078" to .100". Undercut end .100" hex to reach bottom slug in coils.

S-T9302 \$2.50

**TUBE AND PARTS EXTRACTOR**

Straight jaws for firm grip, spring steel construction, nickel plated, insulated jaws.

S-T5092 \$6.50

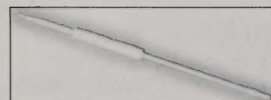
**ALIGNMENT TOOLS**

Professional tool made of Tenite, $5\frac{1}{2}$ " long shaft, $\frac{1}{8}$ " dia. with tapered ends.

S-T8609 \$2.50

Hex tool. $5\frac{1}{4}$ " long, .1" hex end, .075" flat end.

S-T9303 \$1.25

**HEX TOOL**

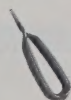
.075" Hex on each end of tool

S-T704 \$1.00

HEAT SINK

Absorb heat during soldering/desoldering sensitive parts. $2\frac{1}{8}$ " long, high carbon steel, hardened & with PVC coating in handle.

S-T156 \$2.25

**MULTI PURPOSE TOOL - 11 functions**

- Clamp
- Wire stripper, AWG 22-10
- 0 - 3 mm wire loop
- Soft wire cutter (Cu, Al)
- Bolt cutter, 4-40 to 10-32
- Steel wire cutter, 0 - 3 mm
- Insulated terminal crimp, 10 - 22 AWG
- Non-insulated terminal crimp, 10 - 22 AWG
- Solid wire cutter
- Ignition terminal crimp
- Flag terminal crimp

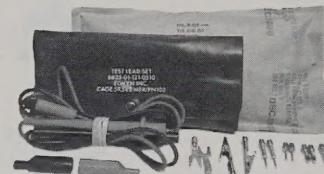
S-T203 \$8.50

**TEST LEAD KIT (Mil Spec)**

Contains: 2 Alligator Clips • 2 Spade Lugs • 2 Pin Jacks (long) • 2 Pin Jacks (short) • 2 Probe Tips • 2 Tip Insulators • 2 Universal

Test Jacks - all included with threaded ends (male). Also contains two 54" leads with threaded ends (female). All "rolled up" in a convenient pouch. Sealed in foil military package. The ultimate set of test leads!

S-Z5R542 \$19.95

**ALIGNMENT TOOL KIT**

Contains 5 different tools for all standard adjustments. Includes "Extend-it" for long reaches. Tools are Delrin packaged in pocket-saver pouch. Tools are: 8282 Zenith type, 8606 Hex wrench, 9091 Hex core tool, 9304 double end tool.

S-T8454 \$6.95

**NYLON ALIGNMENT TOOL KIT**

Assorted hex and flat tools for alignment work.

S-T9304 \$1.75

**ALIGNMENT TOOL KIT, CB**

Contains 5009 Duplex no-metal screwdriver, 5097 K-tran tool, 8271 core aligner, 8282 Zenith alignment tool, 9091 hex iron core tool, 9440 transistor tool, 8276 Duplex aligner and 9304 double end tool.

S-T18-530 \$9.95

**JUMPER WIRE SET**

Heavy duty test leads 22" long with insulated alligator clips. Contains one each of black, red, white, green and yellow jumpers. Set of 5.

S-ZJ4-655 \$6.95

**RESISTANCE WHEEL**

Rotate dial to select resistor for best circuit operation. Uses $\frac{1}{4}$ watt 5% resistors covering 5 ohms to 1 megohm. With insulated alligator clips.

S-Z20-104 \$20.95

**DIAL STRINGING AND SOLDERING TOOL**

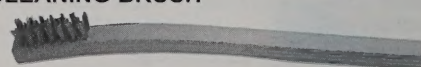
Originally intended to be just a soldering aid, but hook on one end and bent piano wire on the other end are great for stringing dial cords through tight places. Can also be used for soldering, of course. Complements soldering tools with probe on one end and fork on the other. Made in USA.

S-T122 \$3.95

**STAINLESS STEEL CLEANING BRUSH**

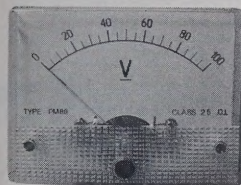
High Quality brush with flexible bristles made of stainless steel. Very good for cleaning corrosion from pins of old tubes. Also removes oxidation from old terminals and other metal parts which much be cleaned for tinning and soldering. Handle is 8" long, laminated wood. Made in USA; not a cheap import.

S-T123 \$2.95



PANEL METERS

80mm wide x 64 mm high (~3 1/8" x 2 1/2") white face. Fits in 2 3/8" round panel cut out. 2 1/2% accuracy.



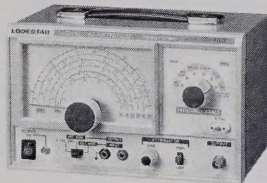
RANGE	PART NO.	PRICE
0-100 uA DC	S-PMD100UA	\$8.95
0-1 mA DC	S-PMD1MA	\$8.95
0-100 mA DC	S-PMD100MA	\$8.95
0-1 A DC	S-PMD1A	\$8.95
0-10 V DC	S-PMD10V	\$8.95
0-100 V DC	S-PMD100V	\$8.95
0-150 V AC	S-PMA150V	\$8.95

RF SIGNAL GENERATOR

Compact solid state RF signal generator designed for the hobbyist, service bench and technical instruction. The generator is most suited for checking and aligning the IF circuit and tuners in AM, FM, and TVs. 100KHz to 150MHz in 6 bands and up to 450MHz on third harmonics. 5.9" high x 9.8" wide x 5.1" deep.

Features:

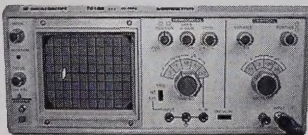
- Wide frequency range - 100KHz to 150MHz
- With 1 KHz oscillator purpose of modulation
- High stability
- Output control - 0dB/-20dB/-40dB and fine adjuster
- Frequency accuracy - ± 5%
- RF output - 100mV rms appx (up to 35MHz unloaded)
- Output control - High-low switch, fine adjust
- Audio output 1KHz min., 2V rms
- Modulation - Internal - 1KHz (AM) 30% appx.
- External - 50Hz ~ 20KHz at < 1V rms input



S-MRFGEN \$159.95

OSCILLOSCOPE

Model OS-701 OB is a compact general purpose oscilloscope with wideband, DC to 10 MHz, and high vertical input sensitivity 10 mV/cm characteristics. The time base sweep rate is designed between 1 µs/cm to 1 ms/cm. Built in fine controller for easier operation. Automatic TRIG control. Engineered for maximum usefulness in laboratories, production lines, as well as in monitoring of instruments. 6" high x 14" wide x 15" deep, 22 lbs.



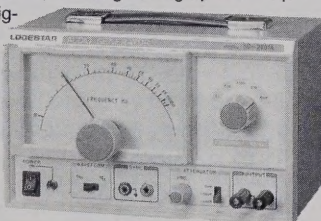
S-MOS-701OB \$349.95

AUDIO GENERATOR

The oscillation frequency range of this audio generator is between voice frequency band and super voice frequency band. Its main function is to measure the characteristics of an audio circuit. Square and sine wave. 10K ohm input impedance, 10V rms maximum input voltage. 600 ohm output impedance. Equipped with synchronized input terminals, enabling the high power output signals to be accurately controlled by small signals. Comes with test lead and ground lead. 5.9" high x 9.8" wide x 5.1" deep.

Features:

- High frequency stability: within ±2Hz
- Frequency range - 10Hz ~ 1MHz, 5 decade bands
- Accuracy - 10Hz ~ 1MHz - ±5% + 2Hz
- Output control - 0dB/-20dB/-40dB and fine adjuster
- 100Hz - 100KHz ±3% + 3Hz
- Output Voltage Floating: within ±1.5dB



	Sine Wave Output	Square Wave Output
Range -	10Hz ~ 1MHz	10Hz ~ 100KHz
Output voltage	8V rms max.	15V p-p
Output distortion	< 0.05% - 500Hz ~ 50KHz	< 0.5% - 50Hz ~ 500KHz

S-MAFGEN \$159.95

MAXI-MATCH DIGITAL TUBE TESTER

Standard tube types testable:

6L6, 5881, EL34, 6V6, 6550, 6CA7, 7581, KT66, KT77, KT88, KT90, KT100

Types testable with optional adaptors:

EL84/6BQ5, 7027, 7591, 7868, 807, 811, 845

Plate Voltage:

Selectable 325 & 400

Bias Voltages:

-60, -48, -36, -24, -12

Filament Voltage: Amps

6.3 VAC 6 A

AC input:

120 vac, 75 watts maximum input power

Measurement Types:

Plate Current (Ip)

Range: 0 > 199.9 mA DC ± 1.5%

Transconductance (Gm)

Range: 0 > 19.99 deci-Mhos, ± 1.5%

Test Frequency:

1 KHz

Short Circuit Test:

Any inter-electrode shorts up to 1MEG Ohm, indicated by LEDs

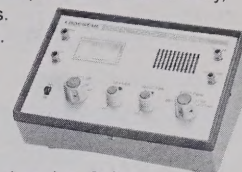
Dimensions/Weight:

8.5" x 12.5" x 2.5" / 11 lbs.

S-Z240 \$495.00

SIGNAL TRACER/INJECTOR

Handy, easy-to-operate versatile instrument with dual power source (9V battery or AC adapter). Two red LEDs on front panel indicate the mode of operation. Ideal for servicing on TV, AM and audio circuitry, plus checking of speakers, microphones and pick-ups. 100 µA meter, 2 1/2" speaker 7.8" W x 5.5" H x 3.9" D.



Features: Tracer Portion

- Gain - Max. 60dB at 1KHz
- Attenuation: 0-20-40-60 dB
- Input impedance: 100K ohms
- RF output: 100mV rms appx (up to 35MHz unloaded)
- Output impedance: Output - 600 ohms (unbalanced) - External speaker - 8 ohms

Features: Injector Portion

- Frequency: appx. 1KHz square wave form
- Output level: 4.5V p-p max., 0 - 4.5 continuously variable

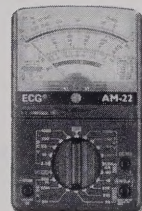
S-MSIGTR \$139.95

ANALOG MULTIMETER - PHILIPS ECG AM-22

General purpose VOM with 7 functions, 20 ranges.

- ±4% DC Accuracy
- 4" Mirrored Scale
- 20K Ohm/Volts DC Input sensitivity
- 8K Ohm/Volts AC Input sensitivity
- Fuse & diode protection
- 10 A DC range
- 1000 Volts AC/DC
- Continuity Buzzer
- Tilt Stand
- Anti-Skid Pads
- 90-Day limited warranty

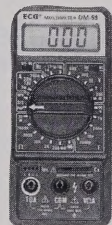
S-Z222 \$27.95



DIGITAL MULTIMETER - PHILIPS ECG DM-59

- 0.5% basic DC accuracy
- 3 1/2 digit LCD, 0.55" high
- 1.5" x 2.8" x 6", 11oz.
- capacitance to 20 mFD
- frequency to 20 MHz
- 10 A (AC 0r DC)
- hFE and diode test
- audible continuity test
- 10 Mohm input resistance
- overload protection
- RF shielded
- polarity indicator
- over range indicator
- low battery indicator
- tilt stand
- 1 year limited warranty

S-ZDM-59 \$59.95



DIGITAL CAPACITANCE METER - PHILIPS ECG

9 ranges give precision readings from .1 pF to 20,000 mFD. Can be used to check virtually all capacitors for tolerance value, selecting matched sets, etc.

- 0.1 pf to 20,000 mF, 9 ranges
- 0.5% basic accuracy
- 3 1/2 digit LCD, 0.5" H.
- Zero adjustment
- Input protected
- Low battery indicator
- Over range indicator
- Rugged construction
- Tilt stand
- 1.5" x 2.8" x 6", 12oz.
- Includes carrying case, test leads, battery, spare fuse and instructions.

S-Z201 \$74.95

ANALOG MULTITESTER - PHILIPS ECG AM-14

Pocket size 6 function, 14 range meter.

- ± 4% DC accuracy
- 2 1/4" mirrored scale
- Jeweled meter movement
- 10K ohms/VDC, 4K ohms/VAC input sensitivity
- Fuse and diode protection
- Battery test - 1.5V & 9V
- Color coded scale & panel
- 2 1/2" x 4" x 1 1/2", 5oz.
- Includes battery, test leads and instruction manual

S-Z230 \$14.95



VARIABLE AC TRANSFORMER-1KVA

Use of a variable AC transformer is critical in testing and troubleshooting radios, amplifiers and other electronic equipment. Allows you to slowly ramp up voltage to equipment under test, preventing damage caused by faulty transformers, capacitors, resistors, etc. 110VAC, 60 Hz input voltage, 0-130 VAC, 1 KVA output. Has lighted power switch, analog output volt meter, 5' power cord and 3 conductor, grounded outlet on front panel. 7" high x 6.5" wide x 8.75" deep. Approximately 21 lbs. Made in China.

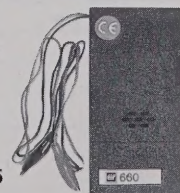


P-TV-1KVA \$59.95

CAPACITOR TESTER

This audible capacitor checker is designed to make capacitor testing fast and easy. Allows you to check for bad or leaking capacitors without removing capacitor from circuit. Audible tone allows you to determine if capacitor is good, shorted or leaking. Can also to check check diodes. Made in USA.

S-ZTIF660 \$34.95



INTERESTED IN REPAIR OR SERVICE, OR IN PARTS WE DON'T CARRY? LISTED BELOW ARE SOME OF THE FOLKS WE CALL WHEN WE NEED HELP. THESE ARE GOOD FOLKS (OR WE WOULDN'T LIST THEM!), HOWEVER, PLEASE USE THIS LIST AS A REFERENCE, NOT AS AN ENDORSEMENT OR RECOMMENDATION. USE GOOD BUSINESS SENSE WHEN DEALING WITH ANYONE (YES, THAT INCLUDES US)!

MUCH AS WE'D LIKE TO OFFER TECHNICAL ADVICE AND SERVICE, WE JUST DON'T HAVE THE TIME OR RESOURCES. PLEASE UTILIZE THESE OR OTHER FOLKS FOR YOUR DESIGN AND TECHNICAL NEEDS.

YOU CAN ALSO CHECK OUR WEBSITE www.tubesandmore.com FOR LINKS AND TECHNICAL NOTES.

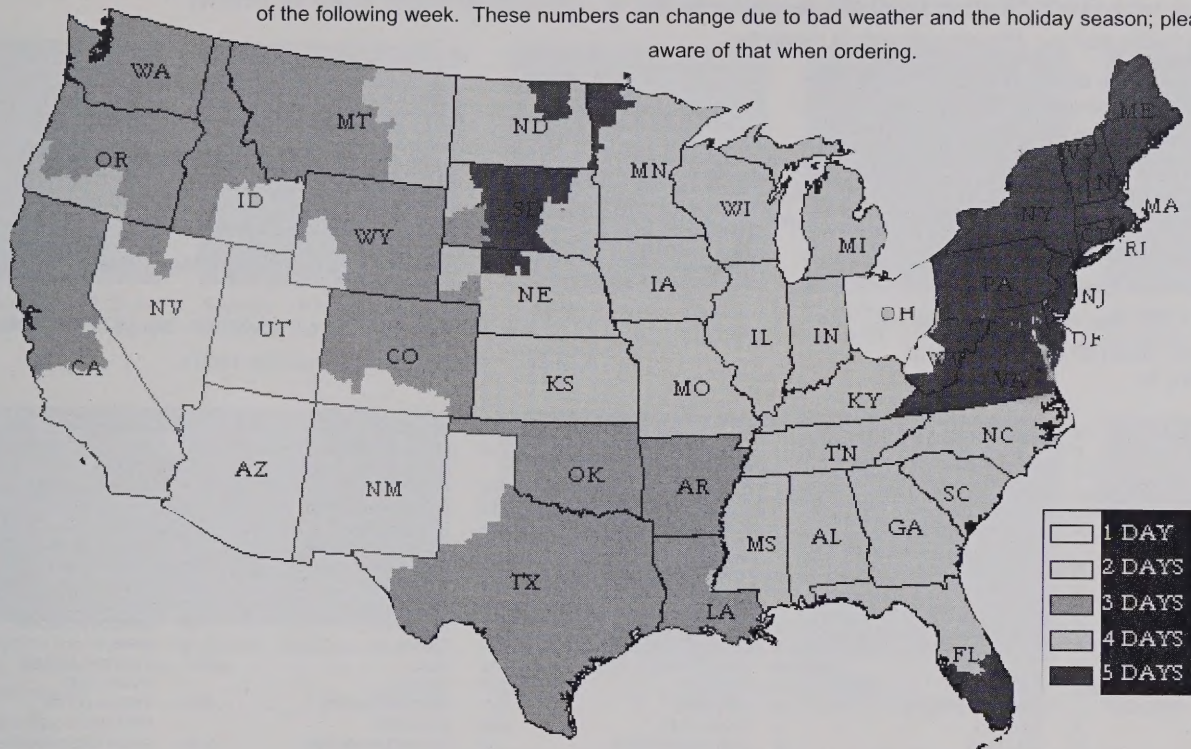
REPAIRS AND SERVICES

ANTIQUE RADIO	CHARLES DEFIR (AZ) 480-610-8495 charliedefir@att.net	OLDER TELEVISION AND RADIO REPAIR	RADEBAUGH RADIO & TV (AZ) 602-963-5222
	ANTIQUE RADIO RESTORATION & REPAIR (CT) Bob Esslinger 860-928-2628 users.neca.com/radiodoc	OLD TELEPHONE PARTS AND REPAIRS	PHONECO (WI) 608-582-4124
		PHILCO PREDICTA	DAVID WEDDINGTON (TN) 615-890-7498 predicta@usit.net
CABINET REFINISHING	TOPPO RESTORATIONS (AZ) 602-993-5361 lynntoppo@earthlink.net	SPEAKER RECONING, FIELD COIL REWINDING	HANK BRAZEAL (AL) 205-823-9257 hankspkr@home.com
CABINET RESTORATION, RADIO REPAIR	KEN KROL (AZ) 602-604-8853 djkrol@earthlink.net	TRANSISTOR RADIO COSMETIC RESTORATION	ERIC WROBBEL (CA) 818-884-2282 ewrobbel@aol.com
CAR RADIO	RAY'S AUTO STEREO (CA) 916-447-9753 rgarcia132@aol.com	TUBE HI-FI REPAIR, DESIGN, CONSTRUCTION	DON ALLEN (AZ) 602-244-1448 doninphx@aol.com
EUROPEAN RADIOS	BAVARIAN RADIO WORKS 781-447-4299	VICTROLAS - REPAIR AND PARTS	COLLECTOR'S MART (AZ) Steve Hinz 520-776-7969
	AUDIO IMPORTS LTD (CA) 626-447-3117 audioimportsLtd@aol.com		
FISHER RESTORATION; ALL TUBE EQUIPMENT	FISHER RADIO CORP (NY) Al Pugliese 718-948-7489 fisherDoc@aol.com		
GUITAR AMP, HI-FI	EVAN AURAND (CA) evan@classamp.com		
	JIM MUNZER (AZ) 480-491-5975 steelbeep@worldnet.att.net		
	STAGE ELECTRONICS (UT) 801-263-1030 www.wagstaffmusic.com		
HI-FI, ANTIQUE RADIO, JUKEBOXES	MIKE ZUCCARO (CA) 619-271-8294 mjzuccaro@aol.com		
MODIFICATION OF HIGH END TUBE AUDIO EQUIPMENT	GREAT NORTHERN SOUND CO. (MN) 651-578-0657 info@greatnorthernsound.com		

PARTS & SUPPLIES (that we don't have, of course!)

DIAL COVERS	DOYLE ROBERTS (AR) 501-745-6690 drob@hypertech.net
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REPRODUCTION KNOBS; PHILCO ESCUTCHEONS	OLD TIME REPLICATIONS (CA) Larry Bordonaro 818-786-2500 oldtimerep@aol.com
VOICE OF MUSIC	VOICE OF MUSIC (MI) Gary Stork 616-925-8841 www.thevoiceofmusic.com

The map below shows the estimated delivery times on UPS Ground Service packages shipping from us to you. Please note that these time frames do not include weekends; nor are they guaranteed. For example to New York from Tempe, AZ takes approximately 5 days shipping time so if a package was shipped to you on a Monday you should not expect it until Monday of the following week. These numbers can change due to bad weather and the holiday season; please be aware of that when ordering.



We ship by UPS ground for continental US deliveries unless you specify otherwise. To Alaska, Hawaii, and Puerto Rico we ship UPS Next Day, UPS 2nd Day, or 2 Day Priority Mail. To figure UPS Residential Ground Service or 2 Day Priority Mail shipping charges, estimate the weight of your order and use the chart below. The shipping charges shown on your invoice when it is received will include our \$2.50 handling fee, i.e. your charge to ship to Connecticut is \$4.73 for one pound, shipping charges will show \$7.23 of which \$2.50 is our handling fee. UPS Next Day, 2nd Day Air, 3 Day Select, and other types of priority delivery are available upon request. These orders will be shipped the same day they are received if **phoned or faxed in by noon (MST)**.

Also shown on the chart are Post Office Air Mail charges to ship to Canada. We ship by Air Mail to Canada unless you specify otherwise at the time of your order.

The UPS rates shown in the following chart are effective through February 2001, at which time UPS will issue new rates. The rate increase in 2000 was approximately 5% and will probably be about the same in 2001. **Please note that these are estimated shipping charges and that we cannot quote exact shipping charges over the phone for any service.**

STATE	AZ Assuming Zone 2&3	So. CA, NM, UT Assuming Zone 4	No. CA, NE, NV, OK, MT, CO, WY Assuming Zone 5	AR, IA, ID, KS, LA, MN, MO, MS, ND, OR, SD, WA, TX Assuming Zone 6	AL, GA, IL, IN, KY, MI, OH, TN, WI, WV Assuming Zone 7	CT, DC, DE, FL, MA, MD, ME, NC, NH, PA, NJ, NY, RI, SC, VA, VT Assuming Zone 8	AK, HI Puerto Rico 2 Day Priority	Canada & Small Packages Airmail	Parcel
WEIGHT (LBS)									
0-1	\$4.12	\$4.35	\$4.40	\$4.59	\$4.63	\$4.73	\$3.20	\$4.09	\$3.15
2-3	4.43	4.81	4.97	5.26	5.40	5.81	4.30	7.44	4.25
4-6	4.84	5.35	5.64	5.93	6.18	6.69	8.25	16.56	8.15
7-9	5.21	5.66	6.00	6.44	6.95	7.77	13.50	20.18	13.25
10-14	5.87	6.16	6.67	7.84	9.22	10.45	20.40	24.10	19.90
15-20	6.92	7.18	8.22	10.09	11.95	13.86	28.20	28.79	24.21
21-26	7.97	8.47	9.87	12.38	14.58	17.21	35.55	34.82	26.93
27-32	8.97	9.83	11.53	14.67	17.26	20.56	42.80	39.51	28.99
33-39	10.20	11.37	13.51	17.20	20.51	24.40	51.25	44.99	32.46
40-50	11.97	13.55	16.47	20.45	25.25	29.79	64.55	53.71	34.49

Cloth is custom made to duplicate early radio speaker cloth. Colors may vary somewhat due to different lots and fabrics used. Width of each is shown.

The exact coloring and patterns of the grill cloth are very hard to reproduce on the next page. If you would like a small sample to evaluate before making your purchase, they are available: first two samples are free, additional samples are \$0.75 each. If you would like a sample of each **radio type** grill cloth available, please order item S-GSRI @ \$10.00 (this saves you \$5.00). If you would like a sample of each **guitar type** grill cloth available, please order item S-GSG-1 @ \$5.00 (this saves you \$2.50).

Here are some radios that our different grill cloth is made for:

S-G426	Same pattern as the S-G432, except in silver, made for Emerson and Deco Models.	S-G959	Philco 80
S-G429	Philco Model 60 for years 1934, 1935, and early 1936 (See S-G440 for late 1936 and beyond).	S-G960	Zenith Consoles from the late 1930's.
S-G431	Philco Models 70, 90, 89, 19; Zenith Models 8-S-463, 9-S-367; Grunow, Crosley and other Models from the late 1930's.	S-G961	Smaller Zenith Consoles from the late 1930's.
S-G432	For Emerson Models.	S-G963	Zenith, Fada, Silvertone from the 1930's.
S-G434	RCA 100A Speaker.	S-G964	Deco looking consoles from 1937. Zenith Leaf Design.
S-G435	RCA, GE, and Westinghouse Models.	S-G965	Zenith Swirl, Shutterdale and Walton, Tombstone Sets. This cloth is reversible.
S-G440	Philco Model 60 late 1936 and up.	S-G966	Philco Diamond for models from late 1939 and 1940.
S-G441	Philco 84	S-G967	Zenith Consoles from the 1940's.

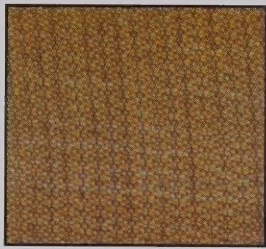
AC CORD PLUGS	56	CASTERS	46	GRID/PLATE CAPS	29	PATCH CORDS	69	SOFTWARE	16-17
ACCUTRONICS REVERBS	45	CAT'S WHISKERS	58	GRILL CLOTH INFORMATION	76	PC BOARD ITEMS	64-65	SOLDER	72
ADAPTORS	29,70	CD'S	16-17	GRILL CLOTH, GUITAR		PHONE PLUGS	69-71	SOLDER LUGS	68
ADHESIVES	46, 63, 65	CEMENTS	65	INSIDE FRONT COVER		PHONO HARDWARE	66, 69-71	SOLDERING IRONS	72
AES GIFTS & SHIRTS	38, 39	CERAMIC DISC CAPACITORS	54, 55	GRILL CLOTH, RADIO	INSIDE BACK COVER	PHONO PICK-UP WIRE	66	SOLENS CAPS	51
AES HAT	38	CHASSIS BOXES	57	GRILLS, SPEAKER	46	PHONO PLUGS	69-71	SPAGHETTI	67
AF GENERATORS	73	CHASSIS PUNCHES	71	GROMMETS	66, 68	PHONOGRAPH BOOKS	6	SPEAKER CLOTH	INSIDE BACK COVER
ALIGNMENT TOOLS	72	CHASSIS STRAPS	45	GUARANTEE INFO	1, 18	PHONOGRAPH NEEDLES	66	SPEAKER GRILLS	46
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AMP KNOBS	45, 46, 60	CLOTH	76, INSIDE COVERS	HANDLES	46, 67	POLICIES	1	STRAIN RELIEF	56
AMP WHEELS/CASTERS	46	CLOTH COVERED WIRE	56	HARDWARE	66-71	POLISH & CLEANERS	63-65	STRINGS, GUITAR	45
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SPEAKER CLOTH

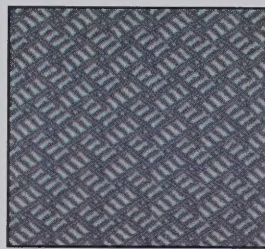
Custom made to duplicate early radio speaker cloth. Colors may vary somewhat due to different lots and fabrics used. Sold in 10" x 12" pieces or by the foot (width of each cloth is shown), in increments of 6" after the first 12".



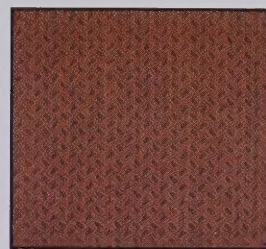
S-G115 10"x12" \$10.00 ea
S-G115F 30" W \$19.00/ft



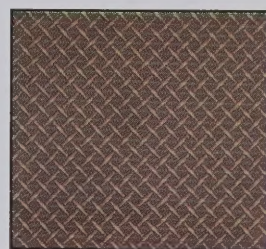
S-G129 10"x12" \$10.50 ea
S-G129F 30" W \$20.00/ft



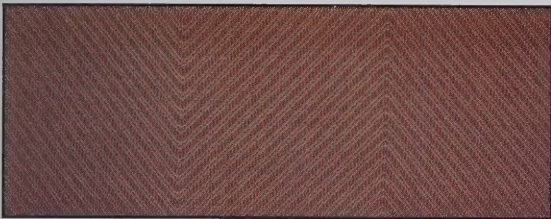
S-G426 10"x12" \$7.50 ea
S-G426F 24" W \$14.00/ft



S-G427 10"x12" \$10.50 ea
S-G427F 30" W \$20.00/ft



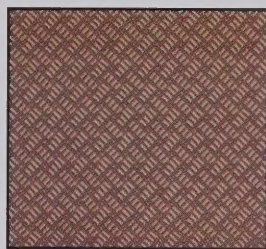
S-G429 10"x12" \$7.50 ea
S-G429F 24" W \$14.00/ft



Sold only by the foot due to the pattern. Has two chevron widths appx. 12" and 19" wide.
S-G430 31" W appx. \$22.00



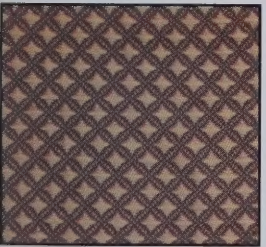
S-G431 10"x12" \$8.00 ea
S-G431F 24" W \$15.00/ft



S-G432 10"x12" \$7.50 ea
S-G432F 24" W \$14.00/ft



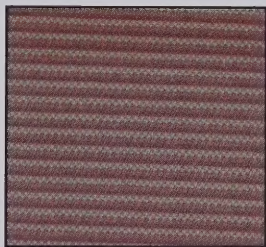
S-G434 10"x12" \$8.00 ea
S-G434F 24" W \$15.00/ft



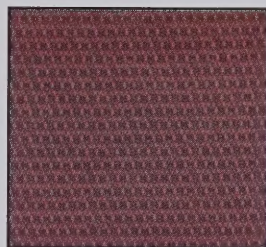
S-G435 10"x12" \$7.50 ea
S-G435F 24" W \$14.00/ft



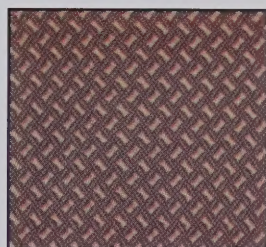
S-G436 10"x12" \$8.00 ea
S-G436F 24" W \$15.00/ft



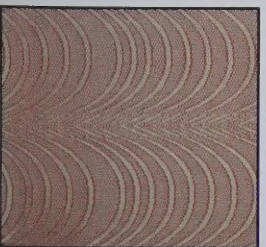
S-G440 10"x12" \$8.50 ea
S-G440F 24" W \$15.50/ft



S-G441 10"x12" \$7.50 ea
S-G441F 24" W \$14.00/ft



S-G959 10"x12" \$7.50 ea
S-G959F 24" W \$14.00/ft



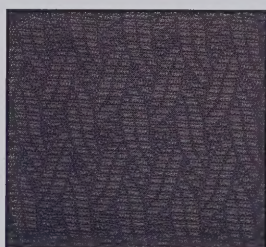
S-G960 10"x12" \$8.00 ea
S-G960F 24" W \$15.00/ft



S-G961 10"x12" \$8.00 ea
S-G961F 24" W \$15.00/ft



S-G963 10"x12" \$8.00 ea
S-G963F 24" W \$15.00/ft



S-G964 10"x12" \$8.00 ea
S-G964F 24" W \$15.00/ft



S-G965 10"x12" \$8.50 ea
S-G965F 24" W \$16.00/ft



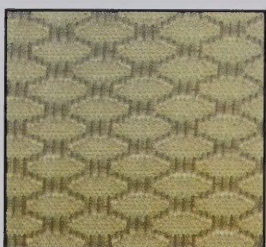
S-G966 10"x12" \$8.50 ea
S-G966F 24" W \$15.50/ft



S-G967 10"x12" \$7.50 ea
S-G967F 23" W \$14.00/ft



S-G969 10"x12" \$7.50 ea
S-G969F 24" W \$14.00/ft



S-G970 10" x 12" \$8.00 ea
S-G970F 24" W \$15.00/ft



S-G971 10"x12" \$11.00 ea
S-G971F 30" W \$22.00/ft

A Special Thanks To
The Following Collectors
For Graciously Contributing
To Our Cover This Year.



① ATWATER KENT 5
George H. Fathauer



⑥

② SPARTON 506 "BLUEBIRD"
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④ DYNACO STEREO 70
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Built By Selden Mitchell



⑨



②



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